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AN
ESSAY,
MEDICAL, PHILOSOPHICAL, AND CHEMICAL,
ON
DRUNKENNESS,

AND
ITS EFFECTS ON THE HUMAN BODY.

BY THOMAS TROTTER, M. D.

LATE PHYSICIAN TO HIS MAJESTY'S FLEET UNDER THE COMMAND
OF ADMIRAL EARL HOWE, K. G.; AND TO THE SQUADRONS
COMMANDED BY ADMIRAL LORD BRIDPORT, K. B. ADMIRAL
EARL ST. VINCENT, K. B. AND THE HONOURABLE
ADMIRAL CORNWALLIS;

MEMBER OF THE ROYAL MEDICAL SOCIETY OF EDINBURGH;
AN HONORARY MEMBER OF THE ROYAL PHYSICAL SOCIETY
OF EDINBURGH, OF THE MEDICAL SOCIETY OF
ABERDEEN, OF THE PHILOSOPHICAL AND
LITERARY SOCIETY OF NEWCASTLE,
&c. &c.

O! thou invisible spirit of wine, if thou hast no name to be
known by, let us call thee—Devil. *Shakspeare.*

THE FIRST PHILADELPHIA EDITION,
CORRECTED AND ENLARGED.

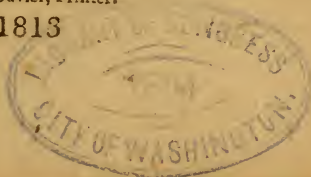
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DEDICATION
TO
DR. JENNER.

MY DEAR SIR,

AFTER having addressed you on the occasion of your GREAT DISCOVERY from the first medical station in the public service of the country, which I had then the honour to hold, you will be the less surprised to hear from me in my present obscurity. In laying the following Essay before the world I feel so independent in motive and expectation, that nothing but the patronage of Dr. Jenner can satisfy me. I shall thus escape the common accusation brought against authors of being flatterers. The man whose labours go the length of saving annually half a million of his fellow-creatures, is as far beyond the sphere of compliment as he has outstripped the measure of human gratitude, and can

need no adulation from my pen. I have, therefore to request that he will accept of all, as a private man, I can offer him, which is to say, with all sincerity,

I am, my dear Sir,

Your most faithful friend, and

Most humble servant,

Newcastle-on-Tyne,
Dec. 25, 1803.

T. TROTTER.

PREFACE.

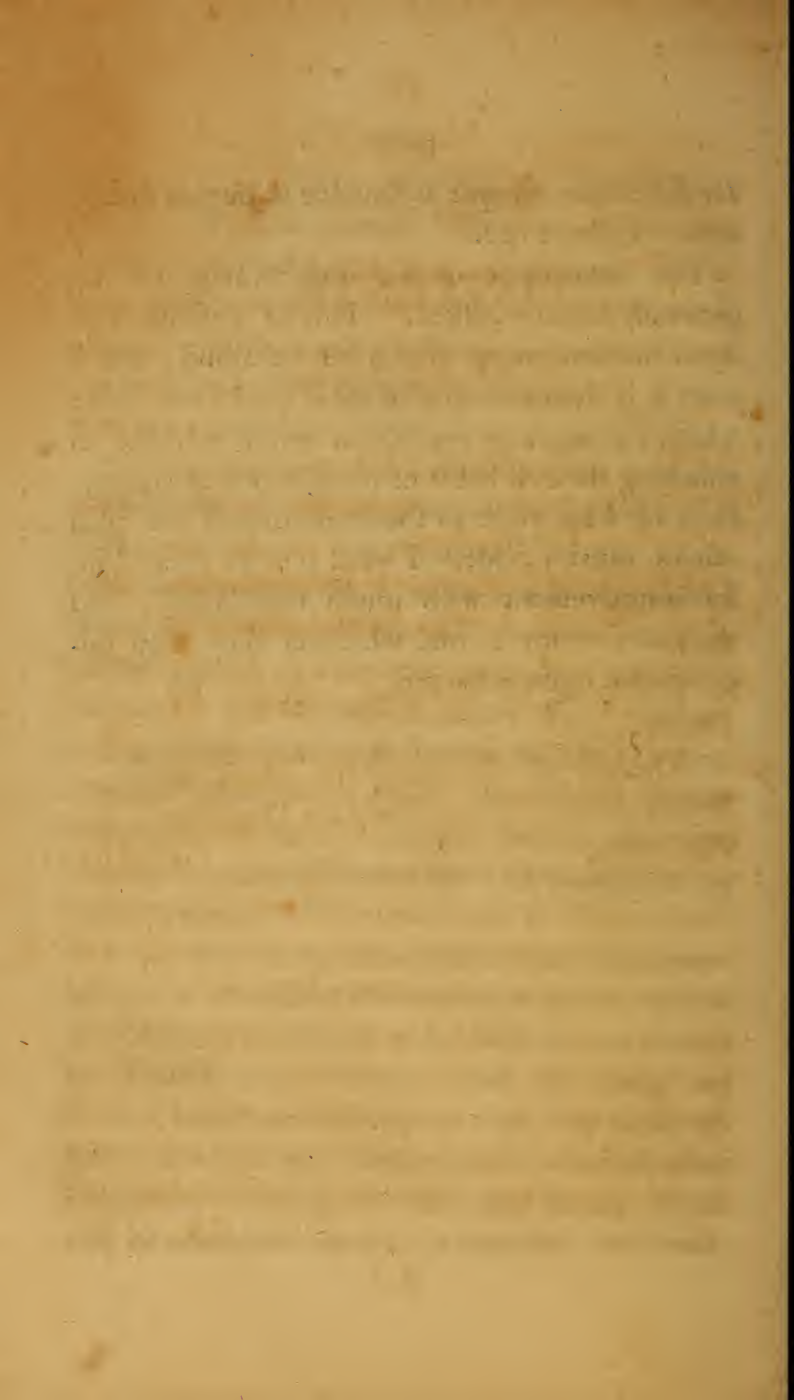
WHEN I became a candidate for the degree of Doctor of Medicine, in the University of Edinburgh, I was rather anxious that the subject of my Inaugural Dissertation should be something that had never been noticed by any former graduate. This was a difficult point; for scarcely any thing remained that had not been previously discussed. After much consideration, however, several objects of inquiry presented themselves, and I fixed upon Ebriety. But some doubts arose in my mind whether such a thesis was proper matter for an academic exercise; and as soon as I was enabled to put it into a regular form it was submitted to the judgment of the late worthy Dr. Charles Webster. The doctor was delighted with the performance, and gave it as his opinion that it would be highly acceptable to the professors. When my private examinations were finished, it became the task of Dr.

Gregory, now Professor in the Practical Chair, to give it his *imprimatur*. Dr. Gregory perused it with great pleasure, and encouraged me to think of it as a subject worthy of future investigation. In the public hall my venerable friend and preceptor, Dr. Cullen, was pleased to introduce my examination with some elegant allusions to the thesis; and after a few facetious remarks on the author, in his usual style, commended the design, execution, and importance of the work. I was shortly after this honoured with the thanks of the Royal Humane Society, transmitted to me by Dr. Hawes, the illustrious founder of that institution. Dr. Hawes observed, that, “the investigation of so important an inquiry, in a regular scientific manner, was never before thought of: it was a subject left, happily left, to be ingeniously executed and amplified by Dr. Trotter.”

After such testimonies from men at the summit of the Medical Profession, it became a task of gratitude, as well as duty, with me, to review the Dissertation. From 1788 till lately my studies have been entirely occupied by naval affairs; and it is only within these few months that I began to compile the following Essay, which may be considered as a comment on the thesis,

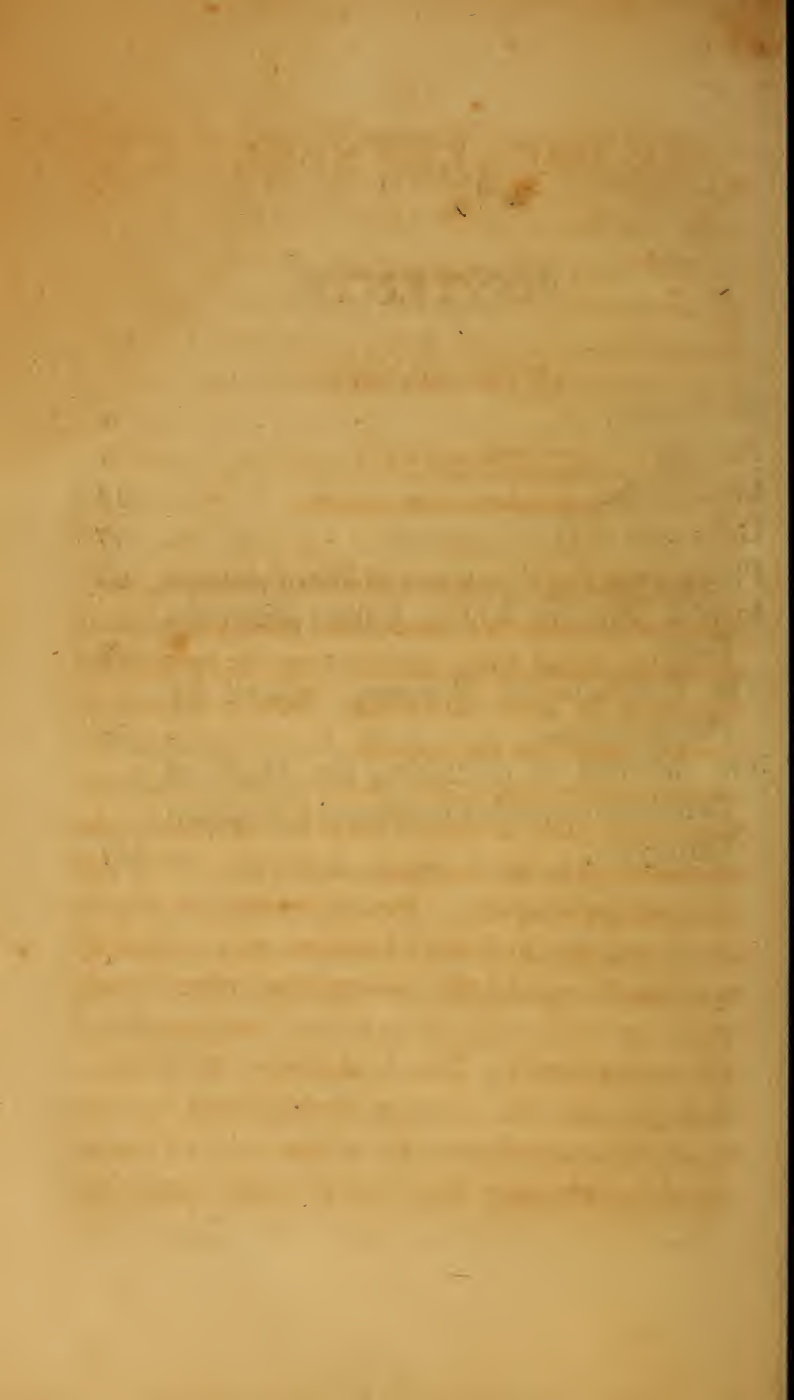
De Ebrietate, ejusque Effectibus in Corpus humanum. Edin. 1788.

The importance of the undertaking will be generally acknowledged. It is of a nature that must interest every friend of mankind; and I trust it is demonstrated in these pages the share which the medical profession ought to take in checking the evil habit of intoxication in society. How far I am right in the execution of the plan others must decide. I shall receive every hint for improvement with much satisfaction; and shall correct my errors, wherever they may appear, with equal pleasure.



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ON DRUNKENNESS, &c.



INTRODUCTION.

———Dulce periculum est,

O Lenæ ? sequi Deum

Cingentem viridi tempora pampino.

Hor.

MANKIND, ever in pursuit of pleasure, have reluctantly admitted into the catalogue of their diseases, those evils which were the immediate offspring of their luxuries. Such a reserve is indeed natural to the human mind : for of all deviations from the paths of duty, there are none that so forcibly impeach their pretensions to the character of rational beings as the inordinate use of spirituous liquors. Hence, in the writings of medicine, we find drunkenness only cursorily mentioned among the powers that injure health, while the mode of action is entirely neglected and left unexplained. This is the more to be wondered at, as the state of ebriety itself exhibits some of the most curious and interesting Phænomena that are to be met with in the history of an-

inated nature. The potent stimulus of vinous spirit, as if by magical influence, so disturbs, or operates on the animal functions, that new affections of mind, latent, or unknown before, are produced ; and the drunkard appears to act the part of a man of deranged intellect, and altogether foreign to the usual terror of his sober reflections.

But a long train of the most dangerous diseases are the certain consequence of habitual intoxication : the body and mind equally suffer. Sudden death, apoplexy, palsy, dropsy, madness, and a hideous list of mental disquietudes and nervous failings, prey upon the shattered frame of the inebriate, and prove fatal in the end. These sufficiently point out the subject as highly important in a medical view, and worthy of the nicest investigation. But as I have not any precursor in my labours, nor example in the records of physic, to direct my steps, I shall need the less apology for the manner I mean to pursue ; and must claim indulgence where I appear singular in my method.

Most instances of casual or sudden death, and suspended animation, have obtained rules for recovery ; while the drunkard, exposed in the street and highway, or stretched in the

kennel, has been allowed to perish, without pity and without assistance; as if his crime were inexpiable, and his body infectious to the touch. Our newspapers give us too frequent accounts of this kind. The habit of inebriation, so common in society, to be observed in all ranks and stations of life, and the source of inexpressible affliction to friends and relatives, has seldom been the object of medical admonition and practice. The priesthood hath poured forth its anathemas from the pulpit; and the moralist, no less severe, hath declaimed against it as a vice degrading to our nature. Both have meant well; and becomingly opposed religious and moral arguments to the sinful indulgence of animal appetite. But the physical influence of custom, confirmed into habit interwoven with the actions of our sentient system, and reacting on our mental part, have been entirely forgotten. The perfect knowledge of those remote causes which first induced the propensity to vinous liquors, whether they sprung from situation in life, or depended on any peculiar temperament of body, is also necessary for conducting the cure. A due acquaintance with the human character will afford much assistance; for the objects of our care are as diversified as the

varieties of corporeal structure. Pleasure, on one hand, presents the poisonous bowl : low spirits, on the other, call for the cheering draught. There business and the duties of office have plunged one man into frequent hard drinking ; while cares and misfortunes have goaded on another. The soldier and the sailor get drunk while narrating the dangers of the battle and the storm : the huntsman and the jockey, by describing the joys of the chase and the course. Here genius and talent are levelled with the dust, in trying to forget, in wine, the outrages of fortune, and the ingratitude of the world ; while more ponderous and stupid mortals, in attempting to seek in the bottle the feelings and sentiments of exalted beings, gravitate to their original clay, or sink deeper into their parent mud.

In treating these various descriptions of persons and characters, it will readily appear to a discerning physician, that very different methods will be required. The patient already knows, as well as the priest and moralist that the indulgence is pernicious, and ultimately fatal : he is also aware, without the reasonings of the physician, that the constant repetition will destroy health ; but it is not so easy to convince him that you possess a charm that can recompence his feelings for the want of a grateful stimulus, or bestow on his ner-

vous system sensations equally soothing and agreeable as he has been accustomed to receive from the bewitching spirit. *Hic labor, hoc opus est*: this is the difficulty; this is the task, that is to prove your discernment, patience, and address. That little has been done hitherto with success, we may be assured, by very rarely meeting with a reformed drunkard. The habit, carried to a certain length, is a gulph, from *whose bourn no traveller returns*: where fame, fortune, hope, health, and life perish.

Amidst the evils which flow from modern wars, is to be reckoned the vast consumption of spirituous liquors. The tax on distilled spirits forms so large a part of finance, and fills up so great chasm in the annual budget of any minister, who may strive more to retain his place than to reform the morals, or check the diseases of his countrymen, that we cease to wonder at its continuance. A few years ago, the crops of grain were so deficient over this island, that the distillation of spirits from malt was prohibited: and thus scarcity, bordering on famine, became a blessing to the human race. But no sooner had fruitful seasons, and the bounty of Providence, covered the earth with plenty, than the first gift of Heaven, abundance of corn, was again, for the sake

of taxation, converted into poisonous spirits, by opening the stilleries. Might not other taxes be devised that would be equally productive? and would it not be a virtuous act of the Legislature to abolish the practice for ever?

In order to treat my subject philosophically, and, for the sake of method, I propose dividing it into the following heads, viz.

1st, Definition of Drunkenness.

2d, The Phænomena, or Symptoms of Drunkenness.

3d, In what Manner Vinous Spirit affects the living Body.

4th, The Catalogue of Diseases induced by Drunkenness. And,

5th, The Method of correcting the Habit of Drunkenness, and of treating the Drunken Paroxysm.

Into these heads I shall occasionally introduce such practical remarks as may arise out of the subjects; but which are too desultory for methodical arrangement.

CHAP. I

Definition of Drunkenness.

O! thou invisible spirit of wine, if thou hast no name to be known by let us call thee——Devil!
Shakspeare.

IN medical language, I consider drunkenness, strictly speaking, to be a disease ; produced by a remote cause, and giving birth to actions and movements in the living body, that disorder the functions of health. This being the case, besides the value of an accurate definition for the sake of system, it may be of some practical utility to point out the affinity which the paroxysm has with other affections. In assigning the character formerly, I was well aware of the difficulty of fixing any symptom, or even concurrence of symptoms, that are invariably present. For this reason *delirium* seemed to be the most certain, as it is the most prominent and general. But objections may yet be made to this ; for difference of age, and varieties of temperament and constitution, influence the accession and progress of wavering intellect during intoxication. Again, although the animal functions are evidently de-

ranged, exhibited by all the shades and gradations of *delirium*, such as imbecility of mind or fatuity, erroneous judgment, imaginary perceptions, false relations, violent emotions called ravings, &c. yet at the same time, the paroxysm is so generally attended with a partial or total abolition of the powers of sense and motion; that it assumes very much the nature of a *comatose* condition. Indeed the most frequent fatal termination of the drunken fit is *apoplexy*. It is certainly no uncommon occurrence to see an inebriate who can neither walk or speak, exercise so considerable a degree of mental power, as to recollect every circumstance that passes; yet so conscious of his inability to move without staggering, that he cunningly watches the opportunity, when unperceived by his companions, to take his leave. The character of this disease therefore, partakes both of *delirium* and *coma*.

To avoid confusion, I take the *remote cause* into my definition. Drunkenness is the delirium occasioned by fermented liquors. It is true that other narcotics, particularly *opium* and *bang*, produce nearly the same phænomena, and their habitual use almost the same diseases; yet, for obvious reasons, the chief of which is the common occurrence of drunkenness in this country, I am

induced to separate them here, and consider this subject by itself.—Our definition is briefly this:

POST VINUM IMMODICE ASSUMPTUM, DELIRIUM ET COMA.—Which may be thus translated:—"Imbecility of intellect, erroneous judgment, violent emotions; and loss of sense and motion after the immoderate use of vinous liquors."

The Latin word "Vinum," has been preferred as being the most concise, and best conveying the meaning of vinous spirit, the product of fermentation, and on which the inebriating power of all fermented liquors depends; such as wine, malt-liquors, cyder, perry, mum, mead, koumiss, &c. all of which by distillation yield "*alkohol*."

The *carbonic acid gas*, or *fixed air*, which is evolved in great quantity during the vinous fermentation, that gives a sparkling and pungency to certain liquors, such as champagne, bottled beer and cyder, is known to produce a kind of stupefaction resembling intoxication, independent of the spirit. This kind of ebriety is but momentary; as the action of the gas on the nerves of the stomach is of short duration. Very different are the effects of this *gas* when breathed. Brewers have frequently been suffocated in

taking out their ale or beer from the vat, as the air lies on the surface of the fermenting liquor. Nay it has sometimes accumulated in such quantities in those cellars, as to prove fatal to several people before the cause was detected, and the air expelled by ventilation. In mines, wells, and the holds of ships, this vapour has often proved lethal.

Dr. Cullen, in his order of *Vesaniæ*, or mental derangement, has given five genera : but the paroxysm of ebriety more particularly exemplifies the mixed character of *amentia*, *insania et mania*, or ideotism, agreeable emotions, and violent emotions. *Oneirodynia*, disturbed sleep, which comprehends sleep-walking and night-mare, perhaps only occurs during the decline of the drunken paroxysm. And *melancholia*, melancholy, would appear to be suspended during the stimulant power of wine. This disease is rather the offspring of habitual intoxication ; it is probably confined to a peculiar temperament of body, that is little disposed to be excited, and can endure excessive stimulus without proportional action, as well in the functions of the *sensorium commune*, as in the circulating system.

There is a species of delirium that often attends the early accession of *typhus fever*, from

contagion that I have known to be mistaken for ebriety. Among seamen and soldiers, where habits of intoxication are common, it will sometimes require nice discernment to decide; for the vacant stare in the countenance, the look of idiotism, incoherent speech, faltering voice, and tottering walk, are so alike in both cases, that the naval and military surgeon ought at all times to be very cautious, how he gives up a man to punishment under these suspicious appearances. Nay, the certainty of his having come from a tavern, with even the effluvium of liquor about him, are signs not always to be trusted: for these haunts of seamen and soldiers are often the sources of infection. In all doubtful cases of this kind, let the members of our profession be guarded in their opinions; it is safe to lean to the humane side.

There is another species of intoxication that follows the inhalation of inflammable spirit, by the nose and mouth, without being swallowed. This species of ebriety is common to coopers, porters, and other workmen employed in cellars and distilleries. The most volatile part of the spirit, or purest alcohol, which arises in pouring it from one vessel to another, probably acts by directly stimulating the nerves of the *membrana*

Shneideriana spread about the nose and frontal sinuses ; and also the inside of the mouth, trachea and lungs, and thus produces delirium. This ebriety is likewise transitory, and soon disappears when the patient is moved into the open air. It frequently happens in ships, in pumping spirits from a large cask into a smaller, in the confined space of a spirit room : but the practice is dangerous, as vessels have often been set on fire by a lighted candle touching the spirits ; and it is now strictly forbidden in all well regulated ships in his Majesty's navy.

CHAP. II.

Phænomena and Symptoms of Drunkenness.

Huc, Pater O Lenæe, veni: nudataque musto
Tinge novo mecum direptis crura cothurnis.

Virg.

THE first effects of wine are, an inexpressible tranquility of mind, and liveliness of countenance: the powers of imagination become more vivid, and the flow of spirits more spontaneous and easy, giving birth to wit and humour without hesitation. *Dissipat Evius curas edaces.* All anxieties of business, that require thought and attention, are laid aside; and every painful affection of the soul is relieved or alleviated. Placed, as it were, in a paradise of pleasure, the being only contemplates delightful and agreeable objects; the most prominent of them are love and desire,

———— sine Baccho friget Venus.

TER.

The man of a lively fancy, who happens to be in love at such a time, sees beauties in his mistress that he overlooked before; and he culls

every flower of poesy that can add warmth to his emotions, or passion to his feelings. The delirium of love may, therefore, be said to begin first.

An agreeable heat is diffused over the whole body ; muscular strength is recruited and the action of the heart and arteries is manifestly increased.

The vigor of the circulation of the blood, being thus augmented, a sparkling of the eyes may be observed ; a flush or redness is spread over the face, and the whole appearance of the countenance is brightened into a smile.

A painter, such as Hogarth, would find fine exercise for his talents in delineating the shades and gradations of feature that take place in particular persons, from perfect sobriety to the last stage of intoxication. The soul, as if unconscious of its danger, looks with bodily organs that bespeak rapture to the deceitful bowl, which carries in its draught every degree of sensation, from pleasure to pain from the purest perceptions of intellect, to the last confusion of thought ; which raises man above the sphere of mortals, and ends, by bringing him to a level with the brutes.

When the mind has attained the highest degree of pleasurable feeling from vinous stimulus,

it is wrapt in *reverie*, which may be called a boundary, between the agreeable sensations of sobriety, and the delirious tumults of thought, which usher in complete inebriation. The system has been enough excited to bring forth pleasurable sensation, to subdue pain, and sufficient judgment remains to analyze the reflections which arise from condition of life, so as to fortify the present moment against all intrusive approaches of care or sorrow. Did the giddy votaries of Bacchus but stop here, some indulgence might be granted, that human nature should a while forget those ills which flesh is heir to.

During this period, which I must beg leave to call the *drunken reverie*, that disguise which all mankind, more or less, carry about them, is in some measure thrown off. The grave philosopher himself, becomes convivial, lays aside his severe demeanour and applauds the jest and the song.

—Teucer Salamina patremque

Cum fugerit, tamen uda Lyæo

Tempora populea fertur vinxisse corona.

Hor.

Narratur et prisci Catonis

Sæpe mero caluisse virtus.

Hor.

Invigorated with wine, the infirm man becomes strong, and the timid courageous.

The desponding lover forsakes his solitude, and silent shades, and in a cup of Falernian forgets the frowns and indifference of an unkind mistress. Even the trembling hypochondriac, unmindful of his fears and ominous dreams, sports and capers like a person in health. Regaled with the pleasures of the board, the soldier no longer complains of the hardships of a campaign, or the mariner of the dangers of the storm.

Quis post vina gravem militiam aut pauperiem crepat?

Hor.

Vino pellite curas:

Cras ingens iterabimus æquor.

Hor.

Dr. Johnson says, "In the bottle, discontent seeks for comfort, cowardice for courage, and bashfulness for confidence*."

Such appear to be the cheerful and inspiring powers of wine. All beyond seem to be chaos and madness. "Tria ego pocula tantum misceo, illis qui sapiunt; unum sanitatis; alterum voluptatis; soporis tertium, &c.†" "Give strong drink unto him that is ready to perish; and wine unto those that be of heavy heart. Let

* Life of Addison.

† Eubul.

“ him drink and forget his poverty, and remember his misery no more*.” So spake the royal voluptuary, who planted him vineyards, and gave himself unto wine : yet he soon found, as every drunkard has done since, that “all was “vanity and vexation of spirit.”

A lover of the bottle, a jolly companion, as commonly expressed, would give you just such a description of the effects of wine, as Shakspeare has put into the mouth of the maudlin Falstaff. “Good faith, this same young sober-blooded boy doth not love me ; nor a man can- “not make him laugh :—but that’s no marvel ; “he drinks no wine. There’s never any of “these demure boys come to any proof : for thin “drink doth so overcool their blood, and making many fish meals, that they fall into a kind “of male green-sickness : and then when they “marry, *they get wenches*:† they are generally

* Proverbs.

† “If a drunken man get a child, it will never likely have a good “brain,” as Gellius argues. Lib. xii. cap. 1. “*Ebrii gignunt “ebrios*, one drunkard begets another,” saith Plutarch:—and Aristotle himself admits, that “drunken women bring forth children like unto themselves.” Burton Anat. Mel.

If these authorities, along with Sir John Falstaff’s, can have any weight, mankind have a stronger reason against intoxication, than has usually been urged by moral writers. That is the dread of

“fools and cowards ; which some of us should
 “be too, but for inflammation. A good sherries
 “sack hath a two-fold operation in it. It ascends
 “me into the brain ; dries there all the foolish,
 “and dull, and crudy vapours which environ it ;
 “makes it apprehensive, quick, forgetive, full
 “of nimble, fiery, and delectable shapes ; which
 “delivered over to the voice (the tongue), which
 “is the birth, becomes excellent wit. The
 “second property of your excellent sherries is,
 “the warming of the blood ; which before, cold
 “and settled, left the liver white and pale ; which
 “is the badge of pusillanimity and cowardice :
 “but the sherries warms it, and makes it course
 “from the inwards to the parts extreme. It il-

transmitting *insanity* to their offspring. Dr. Darwin, in his reveries about generation, speaks of the progeny receiving likeness of form from the imagination of the parent. But if imagination can have the power of impressing the *shapeless ens*, how much more must the real condition of the inebriate. The legislators of some countries had such ideas of the effects of wine, as being a poison to the soul and a fomentor of vices, that their women were subjected to the same punishment for drinking as for adultery. Gel. lib. x. cap. 23. Whatever may be the truth of this doctrine, sobriety in husband and wife must give the best chance for a sober progeny. Dr. Darwin even says, “It is remarkable that all the diseases from drinking spirituous or fermented liquors are liable to become hereditary, even to the third generation, gradually increasing, if the cause be continued, till the family becomes extinct.” Bot. Gard. Part. ii. Note on *Vitis*.

“lumineth the face ; which, as a beacon, gives
 “warning to all the rest of this little king-
 “dom man, to arm : and then the vital com-
 “moners, and inland petty spirits, muster me all
 “to their captain the heart ; who great, and puff-
 “ed up with this retinue, doth any deed of cou-
 “rage ; and this valour comes of sherries : so
 “that skill in the weapon is nothing without
 “sack ; for that sets it a work ; learning a mere
 “hoard of gold kept by a devil, till sack com-
 “mences it and sets it in act and use. Hereof
 “comes it that prince Henry is valiant ; for the
 “cold blood he did naturally inherit of his father,
 “he hath, like lean, sterile, and bare land, ma-
 “nured, husbanded, and tilled, with excellent
 “endeavour of drinking good, and good store of
 “fertile sherries : that he is become very hot and
 “valiant. If I had a thousand sons, the first hu-
 “man principle I would teach them, should
 “be,—to forswear thin potation, and to addict
 “themselves to sack*.”

Hen. iv. part ii. act 4.

The sober pleasures of Bacchus have now been detailed ; noisy folly and ribaldry next appear : the song becomes louder, and dancing com-

* This speech when transposed into more philosophical terms, is no bad assemblage of the phenomena of Vinolency.

mences with the rude squeeze, and every odd gesticulation ; cheerfulness and wit are changed into low humor and obscene jests.

—————tollite barbarum

Morem;verecundumque Bacchum

Sanguineis prohibite rixis.

Hor.

The man is now drunk, and whatever he says or does, betrays the errors of the thinking principle. This scene is finely painted by Thomson in his poem of the Seasons ; and as it is far beyond the compass of medical or technical language, I shall give it in his own words :

————— But earnest brimming bowls

Lave every soul, the table floating round,

And pavement faithless to the fuddled foot.

Thus as they swim in mutual swill, the talk,

Vociferous at once from twenty tongues

Reels fast from theme to theme, from horses, hounds,

To church or mistress, politics or ghost,

In endless mazes intricate, perplex'd.

Mean time, with sudden interruption loud,

Th' impatient catch bursts from the joyous heart;

That moment touch'd is every kindred soul;

And opening in a full-mouth'd cry of joy,

The laugh, the slap, the jocund curse go round.

Along with this noise and folly, all the weaknesses of disposition are unveiled, and the se-

crets of the breast are exposed without reserve. He must be a fool indeed, who shall expound to a rival, the *arcana* of his profession, of his love, or of his friendship ! hence the old adage, “ *in vino veritas.*”

Condita cùm verax aperit præcordia Liber.

HOR.

From this circumstance, it is finely recorded of the Roman chief, that he proved the confidence and sincerity of his counsellors by wine before he ventured to trust them.

Religious enthusiasm is apt to occupy the imagination of fanatics at this time, and they burst forth with blasphemous and familiar addresses to the Deity. Their hypocrisy has lost its veil ; they have now the audacity to talk of visitations from heaven, and the inspirations of the spirit, in all the impudent and unintelligible cant of their sect.

The cultivated mind is even seen in drunkenness. It commits no outrage, provokes no quarrel, and turns its ear from insult and offence. But the ignorant and illiterate man is to be shunned in proportion to his excess : it is human nature in its vilest garb, and madness in its worst form.

There seems no physical strength of constitution that can sufficiently guard against the expo-

sure of these frailties of disposition; the most torpid feelings discover the infirmity. But there is one trait of the moral character, that I have observed, proof against them. It is notorious in the gamester, that he shuns drinking; but plies his companions with the bottle, that he may secure some advantage to himself. I speak here of gaming as a species of avarice. The avaricious man, when drunk, never tells a secret of his soul. Avarice is a passion of so mean a nature, that it will flourish where no other can grow; no mental soil is so steril not to nourish it. A smaller portion of intellect is required for its exercise than for any other vice. As it is so completely environed by self, it feels for no fellow-creature: in all conditions of life it looks at home: when sober, it displays no charity, and never needs to repent of profusion. During drunkenness, the ruling passion is steady to its purpose; "*virtus post nummos*:" it is always prepared to take advantage of a drunken brother; and whether it fleeces him at games of chance, or overreaches him by the tricks of a bargain, you perceive the grasp of avarice, as true to the lust of gain, amidst the delirious excesses of the bottle, as the magnet to the pole, in a storm as sea. "*Qui ledit temulentum prodit absentem.*"

In the heat of intoxication, supposed affronts, that had never been noticed by the party before, are called up, to claim an apology, or provoke a quarrel. Resentments that had been long suppressed, or apparently forgotten, are brought to recollection, that they may seek revenge, or meet with redress. These give birth to numerous feuds and animosities, which frequently terminate in bloodshed and death.

Some conditions of body also mark and accompany this degree of ebriety. As stupor supervenes, voluntary motion being partly lost, the head nods, the walk is tottering, *vox faucibus hæret**. The countenance looks swoln and inflamed, the eyes start and glare, vision is double†; or, is rendered obscure, from mists or meteors, flying, as it were, in the atmosphere.

——— Their feeble tongues,
 Unable to take up the cumbrous word,
 Lie quite dissolv'd. Before their maudlin eyes,
 See dim and blue, the double tapers dance,
 Like the sun wading through the misty sky.

THOMSON.

Et ebrius intendum improviso minget, et alvum exonerat. These imbecilities are the conse-

* Aphonia temulentorum. Sauv. s. 3.

† Diplopia a temulentia. Sauv. Var. 10.

quence of the loss of power in the sphincter muscles: they are peculiar to certain persons. Even voracious appetite, such as is sometimes observed in the apoplectic state, is no unfrequent occurrence in this stage of ebriety.

Such are the chief phænomena of drunkenness; but they vary considerably in different persons, and very much depend on the natural disposition and temperament. We thus see some men, in their cups, mild, good-natured, and gentle; while others are fierce, irascible, and implacable: this one is complaisant to his enemy, and forgetful of injuries; that, is insulting to his friend, and mindful of revenge. This person is gay, musical, and loquacious; that one is dull, sullen, and silent. Here, a drunkard weeps and moans with wry faces; there, another, turbulent and loud, foaming with rage, makes the dome echo with oaths and imprecations. As in every other species of insanity, so in these moments the inebriate forgets the blush of ingenuous shame, and commits many indecent actions.

How dreadful the lot of that man, who while heated and mad with wine, should plunge his sword into the bosom of his friend! In such an hour the infuriate Alexander slew his most dear companion Clytus!

The doctrine of temperaments is not well understood : and it would be difficult to explain the peculiar actions of persons during the influence of wine, by the induction of this doctrine. The sanguineous and choleric temperaments, I conceive to be most prone to resēntment and ferocity; as may be observed in those whose countenance becomes very much flushed or bloated, with their eyes as if starting from their sockets : the former of the two is the most lascivious and amorous. The nervous temperament exhibits most signs of idiotism, and is childish and foolish in its drunken pranks. The phlegmatic temperament is difficult to be roused ; is passive and silent, and may fall from the chair before many external signs of ebriety appear. The melancholic temperament, as when sober, is tenacious of whatever it undertakes ; and shews least of the inebriate in its manner. But all constitutions have something peculiar to them, and the shades of character blend so insensibly with one another, that distinction becomes difficult.

When matters are come to this pass, the stomach, from being too much overloaded, or from that debility which follows all excessive stimulation, is affected with nausea and vomiting. Should this not happen, sleep quickly seizes the inebriate,

and very frequently attended with sterterous breathing. After the space of a few hours, or sooner or later, his senses being recovered, but without recollection of what has passed, the drunkard awakes, languid, low-spirited, and much debilitated.

Here the paroxysm may be said to terminate, and more or less of febrile affection commences : from whence are produced, sensibility to the external air, chills, shivering, creeping on the skin, weakness, inactivity of body and mind, heaviness and pain of the head, nausea, thirst, vomiting small pulse, for the most part frequent, with many other signs of debility.

The drunken paroxysm, as far as can be observed in those who are addicted to the habit, has some variation from the history now given of the phænomena. The cheerfulness of mind, and lively countenance, with all the agreeable and pleasurable feelings, are by no means exhibited in the degree. In short, like all human enjoyments, the exhilarating powers of wine lose their fine zest and high relish, by being too frequently indulged. This very circumstance at once draws the line between the temperate man and the sot.

It ought to be remembered, that the same quantity of wine, or vinous spirit, will not always

produce the same effects in the same person ; or in the same man at all times. This must depend on the habit of intoxication ; the stomach being full or empty ; the usual hour of drinking ; a cold or warm country ; the temperature of the room ; the summer or winter season ; fasting, or after a repast ; and finally, by whatever means the state of the body increases or diminishes the action of stimuli. This is the scale of excitability, as explained by Brown in his *Elementa Medicinæ*.

The most sotted drunkard knows well that a smaller quantity of spirit will do his business in a morning than after he has dined. Hence a rule in temperance never to drink wine on an empty stomach ; or after very long fasting. A very striking fact to this purpose, is to be found in Captain Bligh's narrative of his passage to Timor, after the mutiny on board the *Bounty*. The allowance of water and provision was so exceedingly small, that it was little better than fasting. The rum was measured by a tea spoonful ; yet the body was so susceptible of stimulus, that this quantity produced inebriation. This condition has been called accumulated excitability.

Again, persons labouring under typhus fever very frequently consume from four to six pounds

of wine in the twenty-four hours ; not only without stupour supervening, but delirium, such as it is in that disease, disappearing ; and the frequency of the pulse diminishing in proportion at the same time. The use of wine as a cordial in fever is of very ancient date. Pliny the elder says : — “ Cardiacorum morbo, unicam spem in “ vino esse, certum est*.” Aretaus, and Cælius Aurelianus give similar evidence. In my own practice, supported by experience more extensive than that of any physician of the present age, it has been my chief remedy ; and when directed with due precaution, by far the most efficacious in the low typhus fever†.

* Plin. Nat. Hist. lib. xxiii. c. 2.

† Vide *Medicina Nautica*, vol. i. art. *Typhus*.

CHAP. III.

In what Manner vinous Spirit affects the Body.

Every inordinate cup is unblessed, and the ingredient is a—devil!

Shakspeare.

IN the preceding chapter I have detailed the effects of wine in the living human body, as far as seemed necessary for marking the phænomena which take place from perfect sobriety, to the state of intoxication and total insensibility.

The first effect to be perceived is stimulant and exciting; calling forth vigor of body and mind, pleasurable sensation, and power of intellect. The next is loss of voluntary motion, and delirium. The last is a state of indirect debility, or exhausted excitability, from inordinate action of the different functions.

The inebriating quality of all liquors, I have said, depends upon the ALKOHOL which they contain. This word is of Arabic origin; for the Arabians first obtained alcohol from wine. It means the *pure spirit* separated by repeated dis-

tillations from all grosser matter. It is the product of the vinous fermentation from sugar, and can only be obtained from those substances which possess the saccharine principle.

As an article in *materia medica*, physicians have referred alcohol to the class of *narcotics*; medicines which induce stupor and sleep, among which are reckoned opium, bangué, cicuta, belladonna, hyosciamus, nicotiana, lauro-cerasus, &c.

The operation of *narcotics* has lately given birth to much controversy in medical writings; the one party contending for a *primary sedative* power in these medicines, which, by suspending sense and motion, that condition of the body takes place which is called *sleep*. On the other hand it is argued, that the first effects of *narcotics* are stimulant and exciting; and that *sleep* only comes on as a consequence of preceding excitement: they are therefore to be considered as only *indirectly sedatives*. Experiments have been instituted by both parties, from which each have drawn conclusions favourable to their own side of the question. In disputes of this nature, preconceived theories, attachment to particular doctrines, and favourite modes of reasoning, have had great influence in prejudicing the minds of the

different combatants, and thus giving birth to seeming contradictions. But there is one point in which they nearly agree, and which seems sufficient for the purpose of the practical physician. It is admitted, I think on all hands, that narcotic medicines, or I will take the chief of them, opium, is universally found to be hurtful and improper, in all *sthenic* diseases, or those reputed to be inflammatory in their nature. Who ever thinks of prescribing opium in pneumonia? in phrenitis, or in acute rheumatism previous to venæsection and other evacuations? What reasons are assigned for this caution? They are obvious: In pneumonia, opium increases the difficulty of expectoration and breathing, and anxiety; in phrenitis it exalts the delirium and restlessness; and in acute rheumatism, the fever, pain, and heat of the body, become more severe after its exhibition. These effects are produced by a general stimulant power, spread over the whole body, but particularly exemplified in the circulating system. The stroke of the artery becomes either fuller or more oppressed; the lungs are overloaded with blood, and incapable of due expansion; the blood is also accumulated in the head, apparent from the flush of the countenance and redness of the eyes, and throbbing of

the temporal arteries ; the circulation being also increased in the joints, gives additional heat and pain. The physician who thus decides from sick-bed experience, wisely withholds opium in all such conditions of body.

But in another state of the body, very opposite to the diseases just mentioned ; and often independent of all authorities of physicians, various substances of this class are used by the inhabitants of different countries, as opium and bang by the Turks and East Indians, and tobacco by all others. These articles are certainly not taken in this manner, either for their antispasmodic or sedative virtues : but as stimulants and cordials, that give vigour to the system, raise the spirits, call forth agreeable feelings, and render the body, for a time, capable to bear fatigue and privation of food.

Opium, it is well known, is the juice obtained from the seed-pod of the white poppy, *papaver somniferum* Lin. S. P. and when taken in due quantity is very analogous in its action to ardent spirit. Bang, or bangué, is made from the leaf of a wild kind of hemp, that grows in the countries of the Levant. It is first dried and then pulverized. The effects of this drug are to confound the understanding ; set the imagination

loose ; induce a kind of folly and forgetfulness, wherein all cares are left, and joy and gaiety take place thereof. Bang in reality is a succedaneum to wine, and obtains in those countries where mahometanism is established ; which prohibiting the use of that liquor absolutely, the poor Mus-sulmans are forced to have recourse to succedanea to rouse their spirits*.

In a large dose these substances bring on delirium, stupor, and other phænomena of ebriety. Their habitual use causes universal debility, emaciation, loss of intellect, palsy, dropsy, dyspepsia, hepatic diseases, and all others which flow from indulgence of spirituous liquors. I may therefore conclude, that all narcotics have more or less the same effect.

From these articles, and some others of the same class, alkohol chiefly differs, by being taken generally in a diluted state, such as in wine, beer, or punch, and used as an ingredient in diet. Highly rectified spirit, or pure alkohol, could scarcely be admitted into the human stomach, even in very moderate quantity, without proving immediately fatal. The coats of the stomach would be unable to resist so concentrated a stimulus ;

* Ency. Brit.

they would be instantly decomposed, as is done by nitric or sulphuric acids. When given by drops like tinct. opii, in any convenient drink, this pure alcohol will prove equally serviceable in allaying pain, in increasing the strength and velocity of the pulse, raising the spirits, &c. and would be called antispasmodic. But to show how inconclusive much of the reasoning is, which has been employed here ; the supporters of the sedative doctrine, do not deny a directly stimulant power to all vinious liquors. The effects of opium, I consider nearly alike to those of ardent spirit. The opium-eaters among the Turks, give evidence of this substance increasing desire, and the sexual appetite, like wine in moderate quantities ; but destroying the passion when long used, or too largely employed. It is well known that many of our fair countrywomen carry laudanum about with them, and take it freely when under low spirits. This custom is certainly as little to be justified as the use of brandy. Were opium a sedative, how could it possess those powers, evidently stimulating to the bodies of persons who never troubled themselves about the disputes concerning the mode of action and who could be biassed by no theoretical opinion.

There are some liquors which have a hurtful tendency, independent of spirituous quality. The malt liquors, and cyder of this country, do not undergo so perfect a fermentation, as the product of the grape in warmer latitudes. The first is therefore apt to disorder the stomach, by a slight fermentation afterwards in the body: this is a process that persons of weak degestive organs cannot suffer without much pain. The carbonic acid gas which is there disengaged, excites gastrodynia, flatulency, and distention ; but we are acquainted with no virtues which this gas possesses beyond a slight stimulus ; the modern practice of exhibiting it so often, and in various ways, has rather arisen from the rage after chemical remedies, than any fair evidence that has been given of its medical qualities. The cyders of England, and America, and I rather suppose of all countries, are impregnated with much undecomposed acid : the apple yields but a small quantity of saccharine matter, at least not sufficient by its fermentative quality to overcome the whole of the malic acid which abounds in the fruit and thus convert it into vinous spirit. But beer, and particularly porter, have their narcotic power much increased by noxious compounds which enter them ; and the bitters which are necessary

to their preservation, by long use, injure the nerves of the stomach, and add to the stupefactive quality. Malt-liquor drinkers are known to be prone to apoplexy and palsy, from this very cause: and purl drinkers in a still greater degree, a mixture peculiar to this country. This poisonous morning beverage was, till lately, confined to the metropolis and its vicinity; but has now, like other luxuries, found its way into all provincial towns.

The legislature has lately turned its attention to the noxious quality of some of the porter brewed in London; and opium has been mentioned as an ingredient frequently added to this liquor. An increase of duty has been laid on this celebrated drug by way of prohibition. But when we consider that four grains of opium are sufficient, to double the intoxicating power of a gallon of porter, the article is still cheap enough to be used by the brewer, without subtracting much of his profits. The increased duty will also increase the temptation to smuggle. The Minister of the present day is a professed physician, and once prescribed a *hop pillow* to an *illustrious patient*. May Heaven direct, that the Hopes with which he now pillows that sacred head, may not turn out a *bitter pillow*! But Mr.

Addington does not seem to have been aware, that while he was taking opium from the brewers, he left them in full possession of a long list of narcotics. They have the *Coculus Indicus*, dog-poison, which is said to be their favourite ingredient: they have also hyosciamus, belladonna, and lauro-cerasus; all of which are cheap; and could they not also procure, at a low price, bangué from the Levant, which many Mahometans prefer to opium itself? I believe bitters of all kinds, long continued, are hurtful to the nervous system; it is difficult to say which of them ought to be preferred as being most salutary. Hop is certainly one of the most grateful, but possesses no superior efficacy as an antizymic. It is an article on which Government can levy a duty with more certainty than on any other, and its bulk and mode of growth preclude smuggling; but these seem the chief reasons for the preference. Again, while the Minister was commendably employed in checking the nefarious traffic of the brewers, he forgot that he was wresting from the bed of pain and sickness, by increasing its price, an article that is the last refuge of our art; that fortifies the soul against the pangs of separation from the body, and as it were prunes its wings for its flight to another world! But, to return to my subject:

The operation of vinous spirit on the body is twofold ; which may be divided into,

- I. Intoxicating ; and,
- II. Chemical.

Intoxication or drunkenness is the delirium which succeeds the immediate use of fermented liquors or wine. It is "*delirium ferox* ;" it is the ferocious delirium of authors, to distinguish it from the mild delirium, "*delirium mite*," such as attends the fever from typhoid contagion.

It would be an endless digression, and very little useful to the present investigation, to detail the various theories and conjectures of physicians and metaphysicians on the connexion between body and mind. That our intellectual part can be disturbed, and so completely deranged, by bodily diseases, as to be incapable of using its reasoning powers, is a fact sufficiently established to be universally admitted. But to offer opinions on the nature of a soul, of a nervous power, or of a sentient principle, is not the intention of this work. I shall therefore confine myself to the humbler, but more useful task, of gleaning the

field of inquiry for scattered facts, and endeavour to collect them into a groupe.

The stimulant action of ardent spirit is first exerted on the stomach, and spread, by sympathy, from thence to the *sensorium commune*, and the rest of the system. But there can be no doubt that much of the liquor also enters the circulation, and gives there an additional stimulus: for we are acquainted with no particular appetency inherent in the lacteal vessels, that can confine the absorption only to mild and bland fluids. It is true that the urine, perspirable matter, and serum of inebriates, have never yet been so carefully analyzed as to discover alkohol; but that vinous spirit mixes with the blood we know to a certainty, from the hydrogenous gas which escapes from the lungs, to be perceived in the fœtor of the breath. We are, however, ignorant what combinations the hydrogen, or other parts of the alkohol, may form with the human fluids. But, besides the effect which spirits may have, in directly exciting the nervous system, it would appear that intoxication and delirium are also much increased, by the force of the circulation in the blood vessels of the brain, and the mechanical compression as a consequence of their surcharged state. This being admitted, at once

explains why so much comatose affection attends ebriety. It is also observed that some liquors, more than others, produce sopor: porter, and all strong malt liquors, are of this description, as characterised by the swoln and bloated countenance, stupor, sluggishness, drowsiness, and sleep: while gaiety and an immense flow of spirits distinguish the frisky delirium from drinking champaigne, and some other liquors. Obesity and fulness commonly follow the long indulgence of strong ale, strong beer, or porter: the blood vessels would appear to be clogged with a dense blood; and I have observed, in such cases, that the drunken paroxysm lasts much longer, than when it has been produced by any kind of wine, or even ardent spirit diluted or otherwise. The fixed air in champaigne must give but a temporary stimulus; and the tartar, which is an ingredient in all wines, probably facilitates their evacuation from the body, by its diuretic quality.

Indeed the only way of accounting for the solution of the drunken paroxysm, must be as follows: the ardent spirit must either be attenuated, diluted, neutralized, or evacuated, that it ceases to have effects. It probably partakes of all these. It is also peculiar to the living fibre, to remain a given time in the state of excitement only, unless

a new portion of stimulus is supplied. But the body does not immediately return to the former condition after the solution of the disease. It has been weakened by excessive stimulation; and it is only by the exhibition of moderate stimuli, such as pure air, animal food, and mental exhilaration, that it can resume its former health and vigor. The head-ach, nausea, languor, and low-spirits, which follow a debauch, are so many proofs of a debilitated frame. The sot is then a subject for the prescription of Horace, who, like Solomon, speaks from experience.

Tostis marcentem squillis recreabis, et Afra
Potorem cochleâ : nam lactuca innatat acri
Post vinum stomacho : perna magis, ac magis hillis
Flagitat inmorsus refici : —

The disciples of the late Dr. Brown, author of *Elementa Medicinæ*, some of these, men of great genius and learning, were always at a loss to explain the scale of exciting power on the excitability, by demonstration. Thus, if you begin at good health, and stimulate a man up to any sthenic disease; afterwards he must fall to a point beneath what he originally was; and in descending the scale he must at one period of his descent touch at good health. Now this seems

a paradox. The yellow fever is a sthenic disease in the first stage ; in the second it is a mixture of sthenic and asthenic ; and in the last it is truly asthenic. Now in its descent from one end of the scale to the other, the patient at one time must have been at the point of good health. Mr. Christie, who, I believe, first contrived to demonstrate this doctrine by a mathematical scale, should have formed it in a circle, which would have exactly answered his purpose. The fit of intoxication is somewhat analogous to the above description of yellow fever.

While the body is under the influence of intoxication, it is suprising how it will resist impressions, that at other times would be fatal. This is particularly the case with respect to the contagion, and cold ; and perhaps also its insensibility, to pain. Men in this condition have certainly, on many occasions, been exposed to typhus contagion, and escaped ; while others have suffered : but whether under the same circumstances they would have resisted variolous infection I cannot determine. This being the case, a practice has been inculcated by some physicians, to swallow a little brandy when they approach the sick bed, by way of precaution. With respect to the preference to be given to this mode

of prevention, I am not enabled to subscribe, as I have never practised it; but it appears to me rather the placebo of a timid attendant. It is well known that a vigorous circulation of the blood, with that resolution and temper of mind which accompany it, is highly favourable to the resistance of contagion; and such a condition of body and mind may be induced by ardent spirit. But this kind of practice does not agree with my ideas on the subject. A physician in the act of visiting a patient under an infectious disease, whether in an hospital ward, or in a private apartment, ought to consider what effect his example may have on those about him; for whatever he does will be imitated. The use of spirituous liquors, I think, might have bad effects among nurses and other attendants of the sick. I would much rather inculcate those precepts of security, from ventilation and cleanliness, &c. which have effected wonders in our naval service. I am also partial to mental stimuli, which naturally spring from the desire of doing our duty. But if at any time these spirits should be too freely taken, the debility that succeeds will more certainly predispose the body for the reception of contagion. Persons under such circumstances should

carefully avoid all communication with infected people, furniture, or cloathing.

The druñkard is also found, in the first stage of the paroxysm, to resist the operation of cold. No stronger proofs of this need be adduced than what are daily observed among our seamen in the naval sea-ports. - These men are permitted to come on shore to recreate themselves; but, from a thoughtlessness of disposition, and the cunning address of their landlords, they drink till the last shilling is spent; they are then thrust out of the door, and left to pass the night on the pavement. It is surprising how they should escape death on such occasions; for I have known many of them who have slept on the street the greatest part of the night in the severest weather. Nothing but that hardiness of constitution peculiar to the British seamen, which braves every danger, could survive such extremes of cold. During my residence at Plymouth Dock, towards the conclusion of the late war, I had the satisfaction of getting 200 gin-shops shut up. They were destroying the very vitals of our naval service. In the year 1800, not less than one million four hundred thousand pounds prize-money were paid at that port to the seamen; and every trick was practised to en-

trap those credulous and unthinking people. An overgrown brewer, who had monopolised a number of these houses, complained heavily of my representations to the admiralty ; and said that he had lost 5000*l.* by the business. It was a most fortunate measure, that such nuisances were corrected before the ships were paid off at the peace.

The following fact is a strong instance of the inebriate resisting cold. A miller, very much intoxicated, returning from market late at night while it snowed and froze very hard, missed his way, and fell down a steep bank into the mill-dam. By the fright and sudden immersion, he became so far sensible as to recollect where he was. He then thought the surest way home would be to follow the stream, which would take him within pistol-shot of his own door. Instead however, of taking that course he waded against the current, without knowing it, till his passage was opposed by a wooden bridge. This bridge he knew ; and though he felt some disappointment, he still thought his best way was to follow the stream, for the banks were steep and difficult to climb. He now found himself in a comfortable glow ; turned about, and arrived at his own house at midnight, perfectly sober, after having

been nearly two hours in the water, and often up to the breech. He went immediately to bed, and rose in perfect health.—As his senses were recovered at the time he got home, it is probable he could not have resisted the cold much longer. This instance tends to confirm a common observation, that sudden immersion in cold water puts a speedy end to intoxication.

In an uncommonly cold day, and when snow and sleet were falling, I found a seaman asleep on the road, most stupidly drunk. Afraid that he would soon perish, I ran to the guard house, and procured two soldiers to carry him into a house. We succeeded in getting him upright ; but the moment he saw soldiers about him, the dread of becoming their prisoner so far operated, that he recovered the use of his limbs, and fled from them with the utmost speed, and did not stop till he thought himself out of their reach. I came up, and found him again asleep by the side of a wall. When I roused him he knew me, and humourously remarked, that he had a right to sleep where he pleased, for he came on shore *on liberty !*

Insensibility to 'pain, in the inebriate state is daily exemplified, by the most dreadful bruises and wounds being inflicted without the smallest

signs of feeling, and generally without recollection. Cases of this kind are more frequent among seamen than any were else : their heedless revels expose them to more disasters than other descriptions of mankind. A fatal wound is thus often received without the slightest recollection how it was done.

A sailor belonging to a king's ship, in which I then served, while drunk, quarrelled with his wife ; and, in the fury of his passion, seized a butcher's cleaver, and cut off two of his fingers by the root. The wounds were dressed and the man put to bed. When he waked in the morning, he had no remembrance of what happened ; showed the utmost contrition, and wept like a child for his misfortune when he was told that he had done it himself.

Many curious anecdotes might be collected of drunken people, that could not well be arranged among the usual phænomena. Men of uncultivated minds exhibit most signs of outrage and ferocity : and are certainly the most dangerous. Drunkenness has been called a vice of barbarous and uncivilized nations* ; for savages in the state of intoxication are like so many devils. But Christians have little reason to charge the Negro

* Robertson's America, book iv. Forster's Voyage, page 481.

and Indian with the propensity to intoxication while it prevails so much among themselves. I have known a drunken man whip a post till he was tired, which he took for a human being that would not move out of his way. An old gentleman of 80, when in his cups, became so amorous, as to take a lamp-post for a lady, and addressed it with all the language of passion and flattery. Dreams are sometimes known to make a strong impression on the minds of some people, and it requires a considerable time to weigh circumstances and compare facts, before they are undeceived. An officer much accustomed to hard drinking, after getting intoxicated at the mess-table, fell asleep; and awoke suddenly at the end of two hours. He then told one of his brother officers in a peremptory tone of voice, that as it was an affair of honour, now was the best time for settling it; and insisted upon their taking their ground immediately. It was with great difficulty that he could be pacified: and no small remonstrance took place before he was convinced that he had been dreaming.

The following history of a drunken party is taken from Burton's *Anatomy of Melancholy*; a work that abounds with odd sayings*. "A

* Part i. Sect. 2. Mem. 5. Subs. 1.

“company of young men at Agrigentum in Sicily
 “came into a tavern ; when, after they had free-
 “ly taken their liquor, whether it were the wine
 “itself, or something mixed with it, ’tis not yet
 “known ; but upon a sudden they began to be
 “so troubled in their brain, that their phantasies
 “so crazed, that they thought they were in a ship
 “at sea ; and now ready to be cast away by rea-
 “son of a tempest. Wherefore, to avoid ship-
 “wreck, and prevent drowning, they flung all
 “the goods in the house out at the windows into
 “the street, or into the sea, as they supposed :
 “thus they continued mad a pretty season ; and
 “being brought before the magistrate to give an
 “account of this their fact, they told him (not yet
 “recovered of their madness), that what was done
 “they did for fear of death, and to avoid immi-
 “nent danger. The spectators were all amazed
 “at this their stupidity ; and gazed on them still,
 “whilst one of the ancientest of the company, in
 “a grave tone excused himself to the magistrate
 “upon his knees, *O ! viri Tritonis, ego in imo*
 “*jacui* ; I beseech your Deities, &c. for I was
 “in the bottom of the ship all the while. Another
 “besought them as so many sea-gods, to be good
 “unto them ; and if ever he and his fellows came
 “to land again, he would build an altar to their

“service. The magistrate could not sufficiently
 “laugh at this their madness; bid them sleep it
 “out, and went his ways.”

This drunken adventure, I believe, was originally told by Plato. The house where it happened was one of the first in the city; and was ever afterwards called *Triremes*, or the ship. Brydone, in his *Tour through Sicily*, gives us an account of another drunken party, for whom he made punch after the English form. He says, “We were obliged to replenish the bowl so often, that I really expected to see many of them under the table. They called it Pontio, (alluding to Pontius Pilate), and spoke loudly in its praise; declaring that Pontio was a much better fellow than they had taken him for. However, after dinner, one of them a reverend canon, grew excessively sick, and while he was throwing up, he turned to me with a rueful countenance, and, shaking his head, he groaned out, ‘Ah Signor Capitano, sapeva sempre, che Pontio era un grande traditore.’ ‘I always knew that Pontius was a great traitor.’—Another, overhearing him, exclaimed, ‘Aspettativi Signor canonico.’ ‘Not so fast, my good canon.’ ‘Niente al pregiudizio di Signor Pontio vi prego.’—Recordate che Pontio

“ v’ ha fatto un canonico ; et Pontio ha fatto
 “ sua eccellenza uno vescovo ; non scordatevi
 “ mai di vostri amicus.”—*Let. xx.*

From these accounts, we must conclude the Sicilians are rather a frisky people in their drunken revels. We thus observe that the character of nations, as well as individuals, may be discovered in these moments. The description which Tacitus gives of a German carousal differs considerably from that of these volatile islanders; for, according to what he asserts, deliberations of the most serious kind seem to have been entered upon during ebriety, as well as quarrels and bloodshed. He says, “Diam noctemque
 “ continuare potando, nulli probrum. Crebæ ut
 “ inter vinolentos rixæ, raro convitiis, sæpius
 “ cæde et vulneribus, transiguntur. Sed et de
 “ reconciliandis invicem inimicis, et jungendis
 “ affinitatibus, et adsciscendis principibus, de
 “ pace denique ac bello plerumque in conviviiis
 “ consultant: tamque nullo magis tempore aut
 “ ad simplices cogitationes pateat animus, aut ad
 “ magnes incalescat. Gens non astuta nec calli-
 “ da, aperit adhuc secreta pectoris licentia loci.
 “ Erga detecta et nuda omnium mens, postera
 “ die retrahitur: et salva utriusque temporis
 “ ratio est. Deliberant dum fingere nesciunt ;

“constituunt dum errare non possunt*.” We thus perceive that the frisky Sicilian, and the sedate German exhibit very opposite traits of character, when under the influence of wine. It is notorious of the Dutch, and some other Northern nations, that they are very prone to quarrel and commit murder when drunk. Difference of climate, religion, political institutions, and customs may account for this contrast in the disposition and passions of these nations; but such an inquiry is not consistent with the nature of our work; it is sufficient to notice the fact.

II. That *alkohol*, independent of its intoxicating quality, possesses a *chemical* operation in the human body, cannot be doubted. Applied directly to the animal solid, it constricts and hardens it: and suspends its progress towards putrefaction when separated from the body. It coagulates the serum of the blood, and most of the secreted fluids.

Alkohol certainly, deoxygenates the blood in some degree; at least decomposes its floridity. The arterial blood of a professed drunkard, approaches to the colour of venous; it is darker

* Tacitus De Moribus Germanorum.

than usual. The rosy colour of the eruptions about the nose and cheeks does not disprove this: for it is probable that these spots attract oxygen from the atmosphere through the cuticle that covers them, just as Dr. Priestly observed venous blood, confined in a bladder, to acquire a more florid colour from the exposure to his dephlogisticated air*. In the sea scurvy, a disease, where, in the advanced stage, the blood is always found of a very dark colour, we know that spirituous liquors more than any thing else, have a manifest tendency to aggravate every symptom. This fact has often come under my observation; and a very correct statement of the kind is to be found in my first volume on the Diseases of the Fleet, page 410.

The component parts of alkohol are not sufficiently known; but it has a large proportion of hydrogen, which is proved by its combustion in pure air, when water is produced. Thus fourteen ounces of alkohol burnt in a proper apparatus, with a sufficient quantity of oxygen gas, yield sixteen ounces of pure water; hydrogen and oxygen being the component principles of water, as proved by modern chemistry. Alkohol

* Priestly, Experiments on Air.

has a strong attraction for water, and readily mixes with it, and it is the chief vehicle in which it is drank ; but in what manner it is separated from the water within the body, would be difficult to find out. The evolution of hydrogenous gas is chiefly learned from the fœtor of the breath ; it seems to be sent off from the surface of the lungs, in a disengaged state ; and so pure in its kind from the expiration of a dram-drinker, that it is easily inflamed on the approach of a candle. The process of respiration probably effects this ; and I should think at such a time there must be an unusual consumption of vital air. No experiments have been made on the blood of inebriates : and we are not informed, that in the circulating state, it exceeds the common temperature of the human body. - But it is said, on the authority of Mr. Spalding, the celebrated diver, that after drinking spirits he always found the air in his bell consumed in a shorter time, than when he drank water. This gentleman was lost in Dublin bay in 1783, in attempting to take the treasure out of an imperial Indiaman that sunk there, on her passage from Liverpool where she was built : the misfortune, it appeared, was owing to the negligence of the attendants in not renewing the air.

If the blood of drunkards is strongly charged with hydrogen, must not that very much affect the quality of the biliary secretion, independent of any effect it may have on the liver itself? Might not the resinous matter which bile is found to contain, be greatly increased after spirituous potation? The liver is an organ very liable to be injured by hard drinking; this gives cause for suspicion, that the *chemical* operation of alcohol on the blood and the bile, has also some share in producing hepatic diseases. It may increase the generation of *biliary calculi*, and the disposition of dyspepsia, which prevail in the constitution of drunkards.

Is the perspirable matter of drunkards, at all impregnated with hydrogenous gas?

I am much of opinion that the *chemical* operation of alcohol, has a great influence in retarding the healing of wounds, and in converting them into ulcers. I believe all surgeons agree, that such an effect takes place after hard-drinking, though it is generally attributed to the fever and inflammation which it occasions. The common appearance of eruptions on the surface of the body, may in a great measure be referred to the same source. The exhalations of hydrogenous gas, which arise in some places, are very apt to

irritate the eyes, and bring on a painful ophthalmia; from which it is fair to infer, that the same effect may take place, from blood loaded with hydrogen, circulating through the minute vessels of the *tunica adnata*, as the disease is a common one with wine-bibbers. The fœtor of ulcers, in all drunken subjects, is unusually great; and I shall speak of this under the diseases.

But the most interesting part of this doctrine, is the *combustion of the human body*, produced by the long and immoderate use of spirituous liquors. Such cases are on record; and a collection of them, with remarks, is to be found in the *Journal de Physique*, year 8, by Pierre Aime Lair. I subjoin a copy of that memoir, taken from the Philosophical Magazine, vol. vi. p. 132. by Mr. Alexander Tilloch. It is in vain to request implicit faith to this narrative. The testimony on which the whole cases are given, seems nearly alike. But in the present state of chemistry, and what we know of the nature of spirituous liquors, it does not appear beyond credibility, that from their long and excessive use, such a quantity of hydrogen might accumulate in the body, as to sustain the combustion of it.

It is remarked by some historians, when speaking of the death of Alexander the Great, that even in the warm climate of Babylon, his body kept for several days without corruption, from which it has been inferred, that he did not die of poison, but of hard-drinking*. That a dead body can be preserved in spirits of wine, is well known; but it is not equally certain that the body can be preserved by drinking them before death. It might, however, be a part of the process which has been just mentioned; the body might be so far charged with hydrogen, as to undergo a slighter combustion, that might in a manner toast it without burning. It is notorious of this military tiger, that he was a monstrous drunkard; and as fond of wine as he was of human blood. It is to be regretted that his body could not be preserved to the present day, as it would have filled a niche in the *Louvre* for the First Consul of France.

Some of my readers may have made the remark, that the face of particular drunkards, at certain times, appears as much like a burning coal as any thing can well be conceived. It was probably a face of this kind, that suggested

* Robertson's History of Greece, p. 427.

Shakspeare's description of Bardolph's nose*.
 " Falstaff. Thou art our Admiral, thou bearest
 " the lantern in the poop, but 'tis in the nose of
 " thee ; thou art the knight of the burning lamp.
 " I never see thy face but I think upon hell-fire:
 " but for the light in thy face, thou art the son of
 " utter darkness. When thou ran'st up Gads-
 " hill in the night to catch my horse, if I did not
 " think thou hadst been an *ignis fatuus*, or a ball
 " of wild-fire, there's no purchase in money.
 " Thou hast saved me a hundred marks in links
 " and torches, walking with thee in the night be-
 " twixt tavern and tavern : but the sack that thou
 " hast drank me, would have bought me lights as
 " good cheap, at the dearest chandler's in Eu-
 " rope. I have maintained that salamander of
 " your's with fire, any time this two-and-thirty
 " yearst.†"

* As we observe our acquaintance sinking into the habit of intoxication, we can sometimes mark the rapidity of their progress, as the *gutta rosacea* sprouts on the face, till it partakes of the last stage, and, like Bardolph, they become knights of the *Burning Lamp*!

† Henry IV. P. I. Act. iii.

On the combustion of the Human Body, produced by the long immoderate Use of spirituous Liquors, by PIERRE AIME LAIR.*

“ In natural as well as civil history there are facts presented to the meditation of the observer, which, though confirmed by the most convincing testimony, seem, on the first view, to be destitute of probability. Of this kind is that of people consumed by coming into contact with common fire, and of their bodies being reduced to ashes. How can we conceive that fire, in certain circumstances, can exercise so powerful an action on the human body as to produce this effect? One might be induced to give less faith to these instances of combustion as they seem to be rare. I confess that at first they appeared to me worthy of very little credit, but they are presented to the public as true, by men whose veracity seems unquestionable. Bianchini, Mossei, Rolli, Le Cat, Vicq d’Azyr, and several men distinguished by their leaning, have given certain testimony of the facts. Besides, is it more surprising to experience such incineration than to void saccharine urine, or to see the bones softened to such a

* From the *Journal de Physique*, Pluviose, Year 8.

degree as to be reduced to the state of jelly ? The effects of this combustion are certainly not more wonderful than those of the bones softened, or of the diabetes mellitus. This morbid disposition, therefore, would be one more scourge to afflict humanity ; but in physics, facts being always preferable to reasoning, I shall here collect those which appear to me to bear the impression of truth ; and, lest I should alter the sense, I shall quote them such as they are given in the works from which I have extracted them.

“ We read in the transactions of Copenhagen, that in 1692, a woman of the lower class, who for three years had used spirituous liquors to such excess that she would take no other nourishment, having sat down one evening on a straw chair to sleep, was consumed in the night-time, so that next morning no part of her was found but the skull, and the extreme joints of the fingers, all the rest of her body, says Jacobæus, was reduced to ashes.

“ The following extract of the memoir of Bianchini, is taken from the Annual Register for 1763 :—The Countess Cornelia Bandi of the town of Cesena, aged 62, enjoyed a good state of health. One evening, having experienced a sort of drowsiness, she retired to bed, and her maid

remained with her till she fell asleep. Next morning when the girl entered to awaken her mistress, she found nothing but the remains of her mistress in a most horrid condition. At the distance of four feet from the bed was a heap of ashes, in which could be distinguished the legs and arms untouched. Between the legs lay the head, the brain of which, together with half the posterior part of the cranium, and the whole chin had been consumed; three fingers were found in the state of a coal; the rest of the body was reduced to ashes, and contained no oil; the tallow of two candles was melted on a table, but the wicks still remained, and the feet of the candlesticks were covered with a certain moisture. The bed was not damaged, the bed-clothes and coverlid were raised up and thrown on one side, as is the case when a person gets up. The furniture and tapestry were covered with a moist kind of soot of the colour of ashes, which had penetrated into the drawers and dirtied the linen. This soot having been conveyed to a neighbouring kitchen, adhered to the walls and the utensils. A piece of bread in the cupboard was covered with it, and no dog would touch it. The infectious odour had been communicated to other apartments. The Annual Register states, that

the Countess Cesena was accustomed to bathe all her body in camphorated spirit of wine. Bianchini caused the detail of this deplorable event to be published at the time when it took place, and no one contradicted it. It was also attested by Scipio Maffei, a learned cotemporary of Bianchini, who was far from being credulous; and, in the last place, this surprising fact was confirmed to the Royal Society of London by Paul Rolli. The Annual Register mentions also two other facts of the same kind which occurred in England, one at Southampton, and the other at Coventry.

“ An instance of the like kind is preserved in the same work*, in a letter of Mr. Wilmer, surgeon :—“ Mary Clues, aged 50, was much addicted to intoxication. Her propensity to this vice had increased after the death of her husband, which happened a year and a half before, for about a year, scarcely a day had passed in the course of which she did not drink at least half a pint of rum or anniseed-water. Her health gradually declined, and about the beginning of February she was attacked by the jaundice and confined to her bed. Though she was incapable of much action, and not in a condition to work, she still

* Annual Register for 1773, p. 78.

continued her old habit of drinking every day and smoking a pipe of tobacco. The bed in which she lay stood parallel to the chimney of the apartment, the distance from it of about three feet. On Saturday morning, the 1st of March, she fell on the floor, and her extreme weakness having prevented her from getting up, she remained in that state till some one entered and put her to bed. The following night she wished to be left alone; a woman quitted her at half past eleven, and, according to custom, shut the door and locked it. She had put on the fire two large pieces of coal, and placed a light in a candlestick on a chair at the head of the bed. At half after five in the morning, a smoke was seen issuing through the window, and the door being speedily broke open, some flames which were in the room were soon extinguished. Between the bed and the chimney were found the remains of the unfortunate Clues; one leg and a thigh were still entire, but there remained nothing of the skin, the muscles, and the viscera. The bones of the cranium, the breast, the spine, and the upper extremities, were entirely calcined, and covered with a whitish efflorescence. The people were much surprised that the furniture had sustained so little injury. The side of the bed

which was next to the chimney, had suffered the most; the wood of it was slightly burnt, but the feather-bed, the clothes, the covering, were safe. I entered the apartment about two hours after it had been opened, and observed that the walls and every thing in it were blackened; that it was filled with a very disagreeable vapour; but that nothing except the body exhibited any strong traces of fire."

" This instance has great similarity to that related by Vicq d'Azyr in the *Encyclopedie Methodique*, under the head Pathologic Anatomy of Man. A woman about 50 years of age, who indulged to excess in spirituous liquors, and got drunk every day before she went to bed, was found entirely burnt and reduced to ashes. Some of the osseous parts only were left, but the furniture of the apartment had suffered very little damage. Vicq d'Azyr, instead of disbelieving this phænomenon, adds, that there has been many other instances of the like kind.

" We find also a circumstance of this kind in a work intitl'd *Acta Medica et Philosophica Hafniensia*; and in the work of Henry Bohanser, intitl'd *Le Nouveau Phosphore enflamé*, a woman at Paris who had been accustomed for three years, to drink spirit of wine to such a

degree that she used no other liquor, was one day found entirely reduced to ashes, except the skull and extremities of the fingers.

“ The transactions of the Royal Society of London present also an instance of human combustion no less extraordinary. It was mentioned at the time it happened in all the journals ; it was then attested by a great number of eye-witnesses, and became the subject of many learned discussions. Three accounts of this event by different authors, all nearly coincide. The fact is related as follows :—“ Grace Pitt, the wife of a fishmonger of the parish of St. Clement, Ipswich, aged about 60, had contracted a habit, which she continued for several years, of coming down every night from her bed-room, half-dressed, to smoke a pipe. On the night of the 9th of April 1744, she got up from bed as usual. Her daughter, who slept with her, did not perceive she was absent till next morning when she awoke, soon after which she put on her clothes, and going down into the kitchen, found her mother stretched out on the right side, with her head near the grate ; the body extended on the hearth, with the legs on the floor, which was of deal, having the appearance of a log of wood, consumed by a fire without apparent flame. On be-

holding this spectacle, the girl ran in great haste and poured over her mother's body some water contained in two large vessels in order to extinguish the fire ; while the foetid odour and smoke which exhaled from the body, almost suffocated some of the neighbours who had hastened to the girl's assistance. The trunk was in some measure incinerated, and resembled a heap of coals covered with white ashes. The head, the arms, the legs, and the thighs, had also participated in the burning. This woman, it is said, had drunk a large quantity of spirituous liquor in consequence of being overjoyed to hear that one of her daughters had returned from Gibraltar. There was no fire in the grate, and the candle had burnt entirely out in the socket of the candlestick, which was close to her. Besides, there were found near the consumed body, the clothes of a child and a paper screen, which had sustained no injury by the fire. The dress of this woman consisted of a cotton gown."

" Le Cat, in a memoir on spontaneous burning, mentions several other instances of combustion of the human body. "Having," says he, "spent several months at Rheims in the years 1724 and 1725, I lodged at the house of *Sieur Millet*, whose wife got intoxicated every

day. The domestic economy of the family was managed by a pretty young girl, which I must not omit to remark, in order that all the circumstances which accompanied the fact I am about to relate, may be better understood. This woman was found consumed on the 20th of February 1725, at the distance of a foot and a half from the hearth in her kitchen. A part of the head only, with a portion of the lower extremities and a few of the vertebræ, had escaped combustion. A foot and a half of the flooring under the body had been consumed, but a kneading trough and a powdering-tub, which were very near the body, sustained no injury. M. Christeen, a surgeon, examined the remains of the body with every judicial formality. Jean Millet, the husband, being interrogated by the judges who instituted the inquiry into the affair, declared, that about eight in the evening on the 19th of February, he had retired to rest with his wife, who not being able to sleep, had gone into the kitchen, where he thought she was warming herself; that, having fallen asleep, he was wakened about two o'clock with an infectious odour, and that having run to the kitchen, he found the remains of his wife in the state described in the report of the physicians and surgeons. The judges having no

suspicion of the real cause of this event, prosecuted the affair with the utmost diligence. It was very unfortunate for Millet that he had a handsome servant-maid, for neither his probity nor innocence was able to save him from the suspicion of having got rid of his wife by a concerted plot, and of having arranged the rest of the circumstances in such a manner as to give it the appearance of an accident. He experienced, therefore, the whole severity of the law ; and though, by an appeal to a superior and very enlightened court, which discovered the cause of the combustion, he came off victorious, he suffered so much from uneasiness of mind, that he was obliged to pass the remainder of his melancholy days in an hospital."

" Le Cat relates another instance, which has a most perfect resemblance to the preceeding :—
 " M. Boinneau, curé of Plerquer, near Dol," says he, " wrote to me the following letter, dated February 22d, 1749 :—Allow me to communicate to you a fact which took place here about a fortnight ago. Madamede Boiseon, 80 years of age, exceedingly meagre, who had drunk nothing but spirits for several years, was sitting in her elbow-chair before the fire, while her waiting-maid went out of the room a few moments. On her re-

turn, seeing her mistress on fire; she immediately gave an alarm, and some people having come to her assistance, one of them endeavoured to extinguish the flames with his hands, but they adhered to it as if it had been dipped in brandy or oil on fire. Water was brought and thrown on the lady in abundance, yet the fire appeared more violent, and was not extinguished till the whole flesh had been consumed. Her skeleton, exceedingly black, remained entire in the chair, which was only a little scorched; one leg only, and the two hands, detached themselves from the rest of the bones. It is not known whether her clothes had caught fire by approaching the grate. The lady was in the same place in which she sat every day; there was no extraordinary fire, and she had not fallen. What makes me suppose that the use of spirits might have produced this effect is, that I have been assured, that at the gate of Dinan an accident of the like kind happened to another woman under similar circumstances."

"To these instances, which I have multiplied to strengthen the evidence, I shall add two other facts of the same kind, published in the *Journal de Medicine**. The first took place at Aix in Provence, and is thus related by Muraire, a sur-

* Vol. lix. p. 440.

geon : “ In the month of February 1779, Mary Jauffret, widow of Nicholas Gravier, shoemaker, of a small size, exceedingly corpulent, and addicted to drinking, having been burnt in her apartment, M. Rocas, my colleague, who was commissioned to make a report respecting her body, found only a mass of ashes, and a few bones, calcined in such a manner that on the least pressure they were reduced to dust. The bones of the cranium, one hand, and a foot had in part escaped the action of the fire. Near these remains stood a table untouched, and under the table a small wooden stove, the grating of which, having been long burnt, afforded an aperture, through which, it is probable, the fire that occasioned the melancholy accident had been communicated : one chair, which stood too near the flames, had the seat and fore-feet burnt. In other respects there was no appearance of fire, either in the chimney or the apartment ; so that, except the fore-part of the chair, it appears to me that no other combustible matter contributed to this speedy incineration, which was effected in the space of seven or eight hours.”

“ The other instance mentioned in the *Journal de Medicine* *, took place in Caën, and is

* Vol. lix. p. 140.

thus related by Merille, a surgeon of that city, still alive : “ Being requested, on the 3d of June 1782, by the king’s officers, to draw up a report of the state in which I found Mademoiselle Thuars, who was said to have been burnt, I made the following observations :—The body lay with the crown of the head resting against one of the andirons, at the distance of eighteen inches from the fire, the remainder of the body was placed obliquely before the chimney, the whole being nothing but a mass of ashes. Even the most solid bones had lost their form and consistence none of them could be distinguished except the coronal, the two parietal bones, the two lumber vertebræ, a portion of the tibia, and a part of the ommoplate ; and these, even, were so calcined that they became dust by the least pressure. The right foot was found entire, and scorched at its upper junction ; the left was more burnt. The day was cold, but there was nothing in the grate except two or three bits of wood about an inch diameter, burnt in the middle. None of the furniture in the apartment was damaged. The chair on which Mademoiselle Thuars had been sitting was found at the distance of a foot from her, and absolutely untouched. I must here observe, that this lady was ex-

ceedingly corpulent ; that she was above sixty years of age, and much addicted to spirituous liquors ; that the day of her death she had drunk three bottles of wine and about a bottle of brandy ; and that the consumption of the body had taken place in less than seven hours, though, according to appearance, nothing around the body was burnt but the clothes."

"The town of Caën affords several other instances of the same kind. I have been told by many people, and particularly a physician of Argentan, named Bouffet, author of an essay on intermittent fevers, that a woman of the lower class, who lived at *Place Villars*, and who was known to be much addicted to strong liquors, had been found in her house burnt. The extremities of her body only were spared, but the furniture was very little damaged.

"A like unfortunate accident happened also at Caën, to another old woman addicted to drinking. I was assured, by those who told me the fact, that the flames which proceeded from the body, could not be extinguished by water ; but I think it needless to relate this, and the particulars of another event which took place in the same town, because they were not attested by a *proces-verbal*, and not having been communi-

cated by professional men, they do not inspire the same degree of confidence.

“ This collection of instances is supported, therefore, by all those authentic proofs which can be acquired to form human testimony ; for, while we admit the prudent doubt of Descartes, we ought to reject the universal doubt of the Pyrrhonists. The multiplicity and uniformity even of these facts, which occurred in different places, and were attested by so many enlightened men, carry with them conviction ; they have such a relation to each other, we are inclined to ascribe them to the same cause.

“ I. The persons who experienced the effects of this combustion, had for a long time made an immoderate use of spirituous liquors.

“ II. The combustion took place only in women.

“ III. These women were far advanced in life.

“ IV. Their bodies did not take fire spontaneously, but were burnt by accident.

“ V. The extremities, such as the feet and hands, were generally spared by the fire.

“ VI. Water sometimes, instead of extinguishing the flames which proceeded from the parts on fire, gave them more activity.

“ VII. The fire did very little damage, and often spared the combustible objects, which were in contact with the human body at the moment when it was burning.

“ VIII. The combustion of the bodies left, as a residuum, fat fœtid ashes, with an unctuous, stinking, and very penetrating soot.

“ Let us now enter into an examination of these eight general observations.

“ The first idea which occurs on reading the numerous instances of human combustion above related, is, that those who fell victims to those fatal accidents were almost all addicted to spirituous liquors. The woman mentioned in the transactions of Copenhagen had for three years made such an immoderate use of them that she would take no other nourishment. Mary Clues, for a year before the accident happened, had scarcely been for a single day without drinking half a pint of rum or anniseed-water. The wife of Millet had been continually intoxicated; Madame de Boiseon for several years had drunk nothing but spirits; Mary Jauffret was much addicted to drinking; and Mademoiselle Thuars, and the other women of Caën, were equally fond of strong liquors.

“ Such excess, in regard to the use of spirituous liquors, must have had a powerful effect on the bodies of the persons to whom I allude. All their fluids and solids must have experienced its fatal influence ; for the property of the absorbing vessels, which is so active in the human body, seems on this occasion to have acted a distinguished part. It has been observed that the urine of great drinkers is generally aqueous and limpid. It appears that in drunkards, who make an immoderate use of spirituous liquors, the aqueous part of their drink is discharged by the urinary passage, while the alcoholic, almost like the volatile part of the aromatic substances, not being subjected to an entire decomposition, is absorbed into every part of their bodies.

“ I shall now proceed to the second general observation, that the combustion took place only in women.

“ I will not pretend to assert that men are not liable to combustion in the same manner : but I have never yet been able to find one well-certified instance of such an event ; and as we cannot proceed with any certainty but on the authority of facts, I think this singularity so surprising as to give rise to a few reflections. Perhaps when the cause is examined, it will appear perfectly

natural. The female body is in general more delicate than that of the other sex. The system of their solids is more relaxed; their fibres are more fragile and of a weaker structure; and therefore their texture more easily hurt. Their mode of life also contributes to increase the weakness of their organization. Women, abandoned in general to a sedentary life, charged with the care of the internal domestic economy, and often shut up in close apartments, where they are condemned to spend whole days without taking any exercise, are more subject than men to become corpulent. The texture of the soft parts in female bodies being more spongy, absorption ought to be freer; and as their whole bodies imbibe spirituous liquors with more ease, they ought to experience more readily the impression of fire. Hence that combustion, the melancholy instances of which seem to be furnished by women alone; and it is owing merely to the want of a certain concurrence of circumstances and of physical causes, that these events, though less rare than is supposed, do not become more common.

“The second general observation serves to explain the third; I mean, that the combustion took place only in women far advanced in life.

The Countess of Cesena was 62 years of age ; Mary Clues, 52 ; Grace Pitt, 60 ; Madame de Boiseon, 80 ; and Mademoiselle Thuars, more than 60. The examples prove that combustion is more frequent among old women. Young persons, distracted by other passions, are not much addicted to drinking ; but when love, departing along with youth, leaves a vacuum in the mind, if its place be not supplied by ambition or interest, a taste for gaming, or religious fervour, it generally falls a prey to intoxication. This passion still increases as the others diminish, especially in women who can indulge it without restraint. Wilmer, therefore, observes, “ that “ the propensity of Mary Clues to this vice had “ always increased after the death of her husband, “ which happened about a year before : ” almost all the other women, of whom I have spoken, being equally unconfined in their actions, could gratify their attachment to spirituous liquors without opposition.

“ It may have been observed, that the obesity of women, as they advance in life, renders them more sedentary ; and if, as has been remarked by Baumé *, a sedentary life overcharges the body

* Essai du Système Chimique de la Science de l'Homme.

with hydrogen, this effect must be still more sensible among old women. Dancing and walking, which form salutary recreation for young persons, are, at a certain age, interdicted as much by nature as by prejudice. It needs, therefore, excite no astonishment that old women, who are in general more corpulent and more addicted to drinking, and who are often motionless like inanimated masses, during the moment of intoxication, should experience the effects of combustion.

“ Perhaps we have no occasion to go very far to search for the cause of these combustions. The fire of the wooden stove, the chimney, or of the candle, might have been communicated to the clothes, and might have in this manner burnt the persons above mentioned, on account of the peculiar disposition of their bodies. Maffei observes that the Countess of Cesena was accustomed to bathe her whole body with spirit of wine ; the vicinity of the candle and lamp, which were found near the remains of her body, occasioned, without doubt, the combustion. This accident reminds us of what happened to Charles II. King of Navarre. This prince, being addicted to drunkenness and excesses of every kind, had caused himself to be wrapped up in cloths dip-

ped in spirits, in order to revive the natural heat of his body, which had been weakened through debauchery ; but the clothes caught fire while his attendants were fastening them, and he perished a victim of his imprudence.

“ Besides accidental cumbustion, it remains for us to examine whether spontaneous combustion of the human body can take place, as asserted by Le Cat. Spontaneous combustion is the burning of the human body without the contact of any substance in a state of ignition. Nature, indeed, affords several instances of spontaneous combustion in the mineral and vegetable kingdoms. The decomposition of pyrites, and the subterranean processes which are carried on in volcanos, afford proofs of it. Coal-mines may readily take fire spontaneously ; and this has been found to be the case with heaps of coals deposited in close places. It is by a fermentation of this kind that dunghills sometimes become hot, and take fire. This may also serve to explain why trusses of hay, carried home during moist weather, and piled up on each other, sometimes take fire. But, can spontaneous combustion take place in the human body ? If some authors

are to credited*, very violent combustion may be produced in our bodies by nature, and by artificial processes. Sturmius † says, that in the northern countries flames often burst from the stomach of a person in a state of intoxication. Three noblemen of Courland having laid a bet which of them could drink the most spirits, two of them died in consequence of suffocation, by the flames which issued with great violence from their stomachs. We are told by Thomas Bartholin ‡, on the authority of Vorstius, that a soldier, who had drunk two glasses of spirits, died after an irruption of flames from his mouth. In his third century Bartholin mentions another accident of the same kind after a drinking match of strong liquor.

“ It now remains to decide, from these instances, respecting the accidental or spontaneous causes which produce combustion. Nature, by assuming a thousand different forms, seems at first as if desirous to elude our observation ; but, on mature reflection, if it be found easy to prove accidental combustion, spontaneous combustion appears altogether improbable ; for, even admit-

* German Ephemerides, Observ. 77.

† Ibid. Tenth Year, p. 55.

‡ First Century.

ting the instances of people suffocated by flames from their mouths, this is still far from the combustion of the whole body. There is a great difference between semi-combustion and spontaneous combustion, so complete as to reduce the body to ashes, as in the cases above mentioned : as the human body has never been seen to experience total combustion, these assertions seem rather the productions of a fervid imagination than of real observation ; and it too often happens that nature in her mode of action, does not adopt our manner of thinking.

“ I shall not extend further these observations on the combustion of the human body, as I flatter myself that after this examination every person must be struck with the relation which exists between the cause of this phænomenon and the effects that ensue. A system embellished with imaginary charms is often seducing, but it never presents a perfect whole. We have seen facts justify reasoning, and reasoning serve afterwards to explain facts. The combustion of the human body, which, on the first view, appears to have in it something of the marvellous, when explained exhibits nothing but the utmost simplicity : so true it is, that the wonderful is often produced by effects which, as they rarely strike our eyes, per-

mit our minds so much the less to discover their real cause.

“ Some people may, however, ascribe to the wickedness of mankind what we ascribe to accident. It may be said that assassins, after putting to death their unfortunate victims, rubbed over their bodies with combustible substances, by which they were consumed. But even if such an idea should ever be conceived, it would be impossible to carry it into execution. Formerly, when criminals were condemned to the flames what a quantity of combustible substances was necessary to burn their bodies ! A baker’s boy, named Renaud, being condemned to be burnt a few years ago at Caen, two large cart-loads of faggots were required to consume the body, and at the end of more than ten hours some remains of the bones were still to be seen. What proves that the combustion in the before-mentioned instance was not artificial is, that people often arrived at the moment when it had taken place, and that the body was found in its natural state. People entered the house of Madame Boiseon at the time when her body was on fire, and all the neighbours saw it. Besides, the people of whom I have spoken were almost all of the lowest class, and not much calculated to give rise to the com-

mission of such a crime. The woman mentioned in the transactions of Copenhagen was of the poorest condition ; Grace Pitt was the wife of a fishmonger ; Mary Jauffret, that of a shoemaker ; and two other women, who resided at Caen, belonged to the lowest order of society. It is incontestable, then, that in the instances I have adduced, the combustion was always accidental, and never intentional.

“ It may be seen, that a knowledge of the causes of this phænomenon is no less interesting, to criminal justice than to natural history, for unjust suspicions may sometimes fall on an innocent man. Who will not shudder on recollecting the unfortunate inhabitant of Rheims, who after having lost his wife by the effect of combustion, was in danger of perishing himself on the scaffold, condemned unjustly by an ignorant tribunal!

“ I shall consider myself happy if this picture of the fatal effects of intoxication makes an impression on those addicted to this vice, and particularly on women, who most frequently become the victims of it. Perhaps the frightful details of so horrid an evil as that of combustion will reclaim drunkards from this horrid practice. Plutarch relates, that at Sparta children were deterred

from drunkenness by exhibiting to them the spectacle of intoxicated slaves, who, by their contortions, filled the mind of these young spectators with so much contempt that they never afterwards got drunk. This state of drunkenness however, was only transitory. How much more horrid it appears in those unfortunate victims consumed by the flames and reduced to ashes! May men never forget that the vine sometimes produces very bitter fruit,—disease, pain, repentance, and DEATH!”

How far are the Acts of a Drunkard to be palliated?

This is a point of great importance in civilized society: but it is not the province of the physician to decide with a legal view. Every human being, who was ever intoxicated, must have found, on reflection, that he had said and done things which he would have neither thought of or acted in a state of sobriety. The peace of his neighbour has, therefore, required that the drunkard should answer for his conduct. But it may be asked, ought a madman to answer for his deeds? Certainly: The man who becomes

mad from immoderate vinous potation must be amenable to law, because that madness was of his own seeking.—Again, it may be said, that the drunken man, being as much in a state of delirium as any maniac, ought he to be punished for doing what he was unconscious of? Yes: But punishment might be mitigated here, if it shall appear that no preconceived malice had prompted him. This is, I think, what lawyers call *mal prepense*.—Were a man, during ebriety, to sign a deed, by which he should dispose of his property in an improper manner, to the injury of his family; quere, would such a deed be legal? It might be deemed legal; but to me it would appear unjust to confirm it; because the man never formed such a resolution when he was in his senses. The acts of the drunkard, in this respect, ought not to be valid: for this plain reason, in the same condition he is not allowed to injure his neighbour, or society at large, with impunity; and therefore he ought not to be permitted to injure either his family or himself. All debts incurred, or money lost at play, in the state of intoxication, ought to be declared *null*, on the loser appealing in a proper manner when sober. This would prevent the gamester and systematic villain from taking advantage of the honest man,

and would correct some of the greatest evils in the community.

When a drunken man is lavish of promises which he never made when sober ; be assured, his kindness is not worth your thanks.

When you hear a drunken man boasting of his generosity to his friends ; beware, how you receive a favour from that man.

When you hear a drunken man telling family secrets, whether of his own, or those of other people ; put that man down for a fool ; and take care what you say in his presence.

When you hear a drunken man boasting of his favours from the *sex* ; be assured, that man has no honour.

When you hear a drunken man bragging of his courage ; mark that man a coward.

When you hear a drunken man vaunting of his riches ; be assured, he cannot be estimable for his virtues.

When you hear a drunken man pitying misfortunes which he did not relieve when sober ; it is the strongest proof that he possesses no goodness of heart.

Receive no donations from a drunken man ; lest he should ask them again, when sober.

Avoid the company of a drunkard ; for if he insults you, and you should insist on satisfaction he will plead want of recollection, as apology.

Let the sober man beware of the society of drunkards, lest the world should say, that he means to take an advantage of their credulity.

In how much is the drunkard guilty of suicide, that expires during the paroxysm, after the immoderate use of spirituous liquors ?

CHAP. IV.

The Catalogue of Diseases induced by Drunkenness.

———An anxious stomach well
 May be endur'd; so may the throbbing head:
 But such a dim delirium, such a dream,
 Involves you; such a dastardly despair
 Unmans your soul as madd'ning Pentheus felt,
 When, baited round Cithæron's cruel sides,
 He saw two Suns, and double Thebes ascend.

Armstrong.

THIS head very naturally divides itself into two parts.

SECTION I.

The Diseases which appear during the Paroxysm of Drunkenness.

As I have purposely avoided the natural history of wine, and said but little of its chemical qualities; so I shall not take notice in this place of some diseases, that arise rather from the adulteration of vinous liquors, than the effect of ar-

dent spirit. Of this description is the *colica pictonum*, occasioned by the nefarious introduction of lead, in order to correct the acid taste of wines. The first and most fatal disease of our catalogue is,

*Apoplexy**.

The last degree of ebriety is apoplexy ; a privation of sense and motion, while respiration, and the action of the heart and arteries remain. This disease may be occasioned in two ways during drunkenness. The powerful stimulus of alkohol may directly act on the nervous system, and assail the principle of life. Or it may induce apoplexy, through the intervention of the sanguiferous system, which, by being inordinately surcharged and stimulated, may cause such an accumulation of blood, in the vessels of the head, as to bring on apoplexy, by compressing the brain, the source of sense and motion. The first will most readily be induced by the ingurgitation of a large quantity of raw or undiluted spirit ; and the last will follow the slower mode of intoxication, from wine or strong malt liquor.

* *Apoplexia Temulenta Sauv. Sp. 3.*

When sudden death takes place, during drunkenness, it must be in the manner now described. And when a large quantity of ardent spirit is swallowed at once, it acts so suddenly on the stomach, and by consent with the whole of the nervous system, that the common phenomena of ebriety do not take place. There is no time given for the regular succession of those feelings and passions, which under the more tardy exhibition of wine, always appear. It approaches at once to the most dangerous point; for the man often falls down insensible, as soon as he has finished the draught. Nor, on these occasions, does the countenance shew any unusual signs of colour or fulness: on the contrary, I have always observed the face pale and contracted. Arsenic has seldom been taken in such quantity as to destroy life so quickly as ardent spirit. Indeed that metallic poison, probably acts by first decomposing the organization of the stomach; whereas the other more directly assails the vital principle in the nervous system itself. In such a case, medical practice could avail but little; unless sufficient life remained for throwing in warm water, or any aqueous or even milky liquid at hand, to dilute the spirit, and facilitate its evacuation by vomit-

ing. Vomiting in all stages of temulency is salutary. Nature in this points to her own relief. It is here, as when opium has been taken in great quantities, whether by design or mistake ; if vomiting comes on there is no danger.

But in particular habits of body, more than others, ebriety tends to apoplexy. Physicians have, therefore, marked a condition of body, under the appellation of the *apoplectic make, or form*. This form consists, in fulness of blood, a large head, short neck, &c., which, when joined to advanced age, pave the way to comatose affections. When large quantities of wine, or spirituous liquors, are drank after a full meal of rich food, in such a habit of body, there is much danger of apoplexy. Here the blood vessels become distended with an immense increase of chyle, mixed with vinous spirit, and both highly stimulating. It is commonly after the approach of sleep, that the drunkard is seized with apoplexy, when the digestive process sends forth a copious supply of blood newly prepared. But the state of sleep itself at all times favours the accession of this disease. This may, in part, be accounted for, from the increase of power it gives to digestion ; and in part, to the less expanded state of the lungs, and diminution of ex-

ternal stimuli, by the attention of the system being passive*. The mechanical effect of an overloaded stomach, compressing the descending aorta, is also said to have considerable share in the production of apoplexy.

The proximate cause of apoplexy, as appears by dissection, is blood or serum effused into the ventricles of the brain; or between the dura mater, pia mater, and brain, and the cranium. These, by compressing the medullary substance and origin of the nerves, cause the abolition of sense and motion. Among persons in the habit of bibacity this kind of death is frequent; for predisposition is by that means acquired. The circulation of the blood through the substance of the brain becomes, by every fit of drunkenness more impeded by the obliteration of small vessels; hardening and ossification of particular parts; while the sinuses and vessels on the surface are unusually distended. As drinkers of porter and ale are most liable to the *florid* apoplexy, may not this, in great measure, be attributed to the great supply of nourishing matter which these li-

* I do not here allude to the Stahlian doctrine of an *administering soul*; but, that while sensation is diminished, the natural functions of digestion go on more briskly, and yield a greater quantity of chyle.

quors afford ; and to the bitters, and narcotic drugs, which are fraudulently mixed with them, as mentioned before ? the drinker of malt liquor grows fat and corpulent ; while the drinker of spirits becomes thin and emaciated.

I have, in the former chapter, said that *purl drinkers* were very liable to apoplexy and palsy. Bitters of all kinds seem to possess a narcotic power ; and, when used for a considerable length of time, destroy the sensibility of the stomach. This is a class of medicines that requires much caution in the treatment of dyspeptic complaints, what are called weak digestion. A celebrated medicine, some years ago, for the gout, was offered to the public, under the name of the *Portland Powder**. It was composed chiefly of bitters ; and though it was known to alleviate, or cure the gout, it was always at the expence of the constitution : for, in the space of a few months after the arthritic affection disappeared, apoplexy, palsy, and dropsy, commenced, and soon proved fatal to the patient. The *purl drinker* is exposed to similar danger ; and, sooner or later, must suffer for his indulgence, by an attack from those dreadful maladies. Some people are very fond of *herb-ale*, and *diet drinks*, the ingredients

* Cullen's First Lines, Gout.

of which are bitter herbs and roots, and are equally pernicious when continued long, or frequently resorted to.

When apoplexy has once affected a person, in the advanced period of life, even if temperate in modes of living, it ought to be a *veto* against the use of all spirituous or fermented liquors. In such conditions of body, it is surprising how small a quantity of wine will induce stupor.—A gentleman of my acquaintance was subject to *periodical apoplexy*, (for such I presume to call it, from the frequent attacks,) for the last three years of his life. Such was the recurrence of this disease, that certain signs of plethora always indicated an approaching fit. From these premises, I often foretold to his relations the exact period of a new paroxysm. Some paralytic affection commonly remained after each attack, such as hesitation of speech; inability to retain his urine and stools, &c. This gentleman was now upwards of seventy; and had nothing besides that constituted the apoplectic make: he had been accustomed to much country exercise; and always very moderate in the use of wine: but now he could not take two glasses, without defect of voice and speech, and stupor coming on. Yet, in this situation, he had upwards of thirty distinct fits of

apoplexy, the greater part of which I saw, and he died in one of them.

This disease being so frequent an attendant, or a consequence of vinolency holds up a most awful warning to the inebriate. The thought of a human being rushing into eternity, from a board of gluttony, riot, and intemperance, ought to appal the most depraved and obdurate of mortals!

Epilepsy, Hysterics, and convulsions.*

I class these diseases together, for obvious reasons, as they nearly acknowledge the same proximate cause, and are apt to occur during ebriety, in the same person. It is in the early stage of temulency that these affections chiefly appear; at least before much stupor comes on; and I suspect they are seldom known but where there is a strong predisposition. The stimulus of vinous spirit brings forth a large portion of pleasurable sensation, and induces considerable mobility of the nervous system; and with these, great fulness and turgescency of the blood-vessels of the brain. I have known a number of

*-Epilepsia Plethorica Sauv. Sp. 1.

persons, of both sexes, but particularly seamen, who were subject to epilepsy, and never got drunk without a fit coming on. Two of these men, unfortunately, fell overboard in that condition, and were drowned at sea.

To those of the other sex, who happen to be addicted to the bottle, the hysteric affection is very apt to occur during the paroxysm. There are few female drunkards that do not experience this: for, as fine spirits are easiest to inflame, so slight irritations that ruffle the temper, and excite anger, are seldom quieted without some degree of hysteric passion. In several cases, the frequent appearance of this affection has first led me to detect the unhappy propensity. That modesty which is innate in the female constitution, preserves them from indulgence in company; and they are commonly solitary dram-drinkers. This delicacy of feeling, sometimes carries them great lengths in concealing their situation; and in making them feign complaints to ward off suspicion. I have known a medical attendant acquire much credit from the administration of his *catholicon*; when a gentle nap had performed the cure of an indisposition, of which he had formed no conjecture.—Irregular menstruation, with all its evils, and abortion, in the early months of

pregnancy, are the frequent consequences of inebriation in the fair sex.

I remember to have seen a woman, many years ago, who was much given to spirituous liquors; and, when intoxicated, was often seized with a convulsive motion in the muscles of the lower part of the face, which sometimes induced a dislocation of the lower jaw. Violent emotions of passion usually brought on these convulsions. The common people, not inaptly, attributed the luxation, as a punishment from Heaven for her profane swearing, for she became silent the moment it took place. The complaint was always remedied at the shop of a neighbouring surgeon and apothecary.

Oneirodynia :—fearful Dreams.*

I know not whether *incubus*, the nightmare, is to be justly taken into our catalogue. Fearful dreams are, however, common enough towards the decline of the paroxysm: the fulness of the vessels of the brain, and perhaps also the overloaded stomach, sufficiently explain them. The dream of the officer, who wished to fight his friend, as

* *Ephialtes Plethorica* Sauv. Sp. 1.

mentioned before, is of this kind : to which ought to be added, the account of the drunken party at Agrigentum, as quoted from Burton, in the last chapter. Did the memory of drunkards serve, I suspect, we should be furnished with numerous curious stories of a similar kind.

The power which the body possesses, during intoxication, to resist *contagion*, and to bear *cold*, is well known : and it might probably prove a desperate remedy against some diseases. But it ought to be remembered, that the exhausted condition of the body, after ebriety, as much favours the action of *marsh effluvium* and *infection*, as the excited condition repelled it before. It is in this state that the fevers of tropical climates so readily seize our seamen and soldiers in the West Indies: the typhus contagion of this country is also extended in a similar manner.

SECTION II.

The Diseases induced by habitual intoxication.

Phlegmasiæ :—Inflammatory Diseases.

The diseases of the inflammatory class, are a frequent consequence of intoxication; particularly to persons about the prime of life; of vigorous constitution, a full habit of body, and easily susceptible of stimuli. How can this be otherwise? The body, by drinking fermented liquors, or spirits, is often excited to the last degree: undergoing, in that state, all the vicissitudes of temperature; stewed sometimes in a hot room; and, at another, stretched along the damp and cold ground, in the open air, and frequently in the severest season. It is in this manner that *phrenitis* brain-fever, *rheumatism*, *pleurisy*, &c. are to be accounted for, after a fit of ebriety.

Gastritis and *enteritis*, inflammations of the stomach and bowels, are common followers

of the large use of ardent spirit. It is even surprizing that these diseases are not more often met with from this cause. The stomach is a highly sensible organ; and in particular conditions of the system, cannot be stimulated to any great degree without partaking more or less of inflammation. Indeed, these diseases, in general, are very quickly fatal: they perform the work of death, in the short space of a day or two; and with but little warning to the patient. The pain and heat about the region of the stomach, deceive so far, that fresh quantities of spirits are taken down with a view of relieving a cramp, and thus, in a manner, fuel is heaped on the fire.

Ophthalmia:—Inflammation of the Eyes.

This complaint of the eyes is one distinguishing badge of a drunkard; remarked by the vulgar, as if to point him out to the finger of scorn. Solomon says, “Who hath woe? who hath sorrow? who hath contentions? who hath babbling? who hath wounds without cause? who hath redness of eyes? They that tarry long at the wine; they that go to seek mixed

“wine*.” The wise king of Israel, who knew human nature well, and probably spoke from experience, has, in this text, given a fine summary of the evils which follow bibacity.

The eye is so constructed, that it readily discovers, by its turgid vessels in the *tunica adnata* or white, the effects induced by a hurried circulation. By these means it displays some of the most obvious phænomena of drunkenness. But the turgescence and redness of the coats of the eye do not always subside with the solution of the drunken paroxysm: a true inflammation succeeds, attended with pain, intolerance of light, &c.; hence specks on the eye, dimness of sight, and other frailties of that organ, are often permanent.

Carbuncles, and Gutta Rosacea.

Tumors and leprous eruptions, of various size and colour, appear about the nose, and other parts of the face. The vigorous circulation, and determination to the head, may have some effect, in increasing the disposition to these cu-

* Proverbs, Chap. xxiii. 29, 30.

taneous affections: but I have some suspicion that they are induced, in a great measure, by the chemical qualities of alkohol, most likely by the evolution of hydrogen in the course of the circulation; and they appear in the face where the superficial blood vessels are more numerous than in any other part of the body. It is in these vessels that the hydrogen attracts oxygen from the atmosphere; the blood in them becomes preternaturally florid; the skin is thus excited and inflamed, and the spots appear in consequence. Darwin* speaks of them as being sympathetic of diseases of the liver. Although predisposition may much assist here, yet, I think, from what I have observed, that a long use of spirituous liquors will cause the growth of these eruptions in any constitution whatever. There is no deformity incident to the human body more disgusting than this. See Shakspeare's description of Bardolph's nose in the last chapter.

* Zoonomia.

Hepatitis :— Inflammation of the Liver.

Hepatic inflammation, both of the acute and chronic species, is a common effect of hard drinking. The liver, indeed, more than other viscera, appears to be particularly subject to diseases from this cause. The vicissitudes of heat and cold to which the inebriate is so often exposed, may have some share in the production of this complaint, like other phlegmasiæ ; but the chief cause must be the spirituous stimulus. It is not evident whether the inflammation may be propagated from the *duodenum*, along the common and biliary ducts, to the substance of this viscus ; or whether the blood, highly charged with alcohol, may not be the means of exciting hepatitis. The chronic species is not a painful disease ; is slow in its progress, and frequently gives no alarm till some incurable affection is the consequence. It is probable that this inflammation, in some degree or other, always precedes the enlarged liver, and particularly that form of it that may be properly called the *tubercular disease of the liver*.

Podagra :—Gout.

This disease, so often the companion of wealth and indolence, has been so frequently induced by excess in love and wine, that in every age it has been justly styled the offspring of Venus and Bacchus. This fact, I believe, is sufficiently substantiated in the records of Medicine; for gout is very seldom or never seen in the habitation of poverty and labour.

Excess in vinous potation too often gives a stimulus to the other passion; but when together they are immoderately practised, and often repeated, debility of more than a common kind is induced. If there is an hereditary disposition to gout, all excesses must be more hurtful. In youth hard-drinking is particularly injurious; it brings on premature decay; and, more than any other cause, paves the way for the diseases of age before the meridian of life. But as the organs of digestion are so principally concerned in gout, the excess in drinking acts there with peculiar force. It is highly probable that the mere pains, and inflammation of the joints, are very secondary symptoms of this complaint; and

that the only sure way to ward it off is by preserving the vigour of the digestive organs by temperate and abstemious living ; and by beginning early in youth to pursue a regular and active mode of life. These are the best security for a sound constitution, which alone can insure a happy and healthy old age. It is true, few young men will submit to such rigid precepts : and experience of their truth and value is too often to be purchased at the expence of health. Yet there are many examples to be found, of men who have suffered misery for years, and dragged out a wretched existence under arthritic pains, that would gladly forego the pleasures of wine, had they life again to renew. As example is therefore better than precept, the juvenile debauchee should be occasionally introduced into the sick chamber of the hoary veteran in excess. If the children in Lacedæmon were to be trained to temperance, by looking on the disgusting actions and revelry of drunken slaves, let the youths of present time be instructed from the unwieldy joints, withered limbs, and hypochondriacal glooms of our modern Arthritics.

Schirrus of the Bowels.

Ardent spirit hardens and contracts the animal fibre, and coagulates the juices. Hence the sensibility of different organs is gradually exhausted; and the vessels, whether arteries, veins, lymphatics, or other canals and ducts for conveying fluids, are lessened in their diameter, and ultimately obstructed. A schirrus of the stomach, at least of the pylorus, and liver especially, are frequent concomitants of habitual ebriety*. But the intestines, pancreas, spleen, and perhaps the kidneys, are also liable to the same affection; all of which, after a certain time, are incurable, and often speedily fatal. The dram and purl drinker may sooner experience these evils than other drunkards, but even the guzzler of small-beer has no security against them. Nay, so sure and uniform is this effect of producing diseased bowels, by fermented liquors, that in distilleries and breweries, where hogs and poultry are fed on the sediments of barrels, their livers

* Vide Morgagni De Causis et Sedibus ubicunque defectionibus temulentorum disseruit.—See also Baillie's Morbid Anatomy, Diseases of the Liver.

and other viscera are observed to be enlarged and hardened, like those of the human body ; and were these animals not killed at a certain period, their flesh would be unfit to eat, and their bodies become emaciated.

Icterus :—Jaundice.

This disease is frequently a consequence of the preceding one, affecting the liver ; when by its enlargement, the biliary vessels and ducts are compressed, and the free egress of the bile prevented ; by which means it is, by absorbing vessels, carried into the circulation, and there defædates the whole body. It is another of those disgusting signs which the habit of intoxication gives to the external form ; when jaundice appears, it may be reckoned a proof of the patient being a veteran worshipper at the shrine of Bacchus.

In most cases, it may be deemed the birthright of dram-drinking, or the use of grog ; but all other liquors produce it by long continuance. Towards the end, the complexion and eyes, from being yellow, put on a sable hue, which is a

symptom of approaching dissolution. The drunkard should be taught to look into a glass, that he may spy the changes in his countenance: the first stage would present him with redness of eyes; the second would exhibit the carbuncled nose; and the third, a yellow and black jaundice. In the body of the inebriate, the liver might be justly called the *officina morborum**!

Dyspepsia:—Indigestion.

There are so many organs concerned in the processes of digestion, chylicification, and sanguification, that we cannot be surprised at the effects of hard drinking in deranging them: for the first introduction of the liquor into the body comes in direct contact with most of them; such as the stomach, intestines, biliary and pancreatic ducts, lacteals, &c. Want of appetite and bad digestion are therefore common with drunkards. The stomach, next morning after a last night's debauch, is left in a state of febrile debility; its

* Feb. 24. I have at present a patient just recovering from diseased liver and jaundice; who, by giving up the vinous stimulus at once, has been miraculously snatched from the verge of the grave!

muscular power feeble and exhausted ; and the gastric juice vitiated and unfit to excite the desires of healthful appetite, or to perform the office of an active solvent, in the business of preparing the food. Hence to make a good breakfast has always been reckoned a sign of good health, and a proof of temperance. The stomach, by degrees, grows torpid from immoderate stimuli, and their frequent repetition, till it feels little inclined to receive that mild and bland nourishment which is usually served up for the morning repast. In this manner dyspeptic complaints first commence ; acidity, cardialgia, flatulence, and nausea, are succeeded by nervous irritability, and pain, which tend to fix the distress of the inebriate. To relieve these, the megrim, *tædium vitæ*, and hypochondriacism, which accompany them, he flies to his bumper. Thus every succeeding day's potation exceeds its predecessor in quantity, and he becomes a habitual drunkard. The morning hours of such a man, when neither business or rational recreation can engage him, are spent in listless inactivity ; he flies from trifle to trifle, expresses his *ennui* by constant yawning, and impatiently counts the tardy hours that shall relieve his longing for the bottle. The man who has once ex-

hibited such symptoms is on the high road to ruin. I have witnessed the situation of some drunkards, when their potation had been longer withheld than usual; it is impossible to relate such a scene; frantic gestures; hideous yells; screams of torture; looks of despair; groans, sighs, weeping, and gnashing of teeth, are but a describable part of it: it may literally be summed up in what is called the "*torments of the damned.*"

In such cases of dyspepsia, accompanied by these strong mental hallucinations it is in vain to expect a cure from articles of medicine. The habit of drinking must be abandoned, and moral arguments, with such religious admonitions as inspire hope, must be speedily employed to prevent suicide or derangement of intellect.

Hydrops :—Dropsy.

When infractions and enlargements of the abdominal viscera take place, the dropsy, next, makes its appearance. The free return of blood to the heart is impeded; and thus exhalation is increased. But the torpid and palsied state, if I may so call it, of the absorbent system, best ex-

plains the accumulation of aqueous fluid in the several cavities. The lymphatic vessels, like the veins and arteries, possess muscular power by which their contents are propelled. This muscular power, by excessive stimulus, is liable to be exhausted, as in other parts of the body, and the action of the absorbents is hereby lessened. Thus, while an increased proportion of fluid is effused from the relaxed exhalants, the debilitated absorbents are incapable of taking it up. We observe the effect of these vessels being strongly stimulated in the stomach and intestines, by the thirst which succeeds the large ingurgitation of ardent spirit. In the like manner constipation is produced, from the more fluid fœcal matter being absorbed, while the more dry parts of the mass are with difficulty pressed forward. Diseases of the liver, more than others, seem to be followed by hydropic disposition. I think it requires something beyond the mechanical resistance of diseased viscera to explain this; for that organ, it would appear, possesses some uncommon sympathy or connexion with the functions of the lymphatic system. Dropsy, is therefore, very frequently the harbinger of death with the inebriate.

Tabes: Atrophia:—Emaciation of Body.

These complaints naturally follow the weakened condition of the stomach and alimentary canal. The lacteal vessels themselves, by the frequent application of alkohol, are rendered torpid, constricted, or impacted; and the glands of the mesentery, for the same reason, are made impervious. But when the bile, gastric and pancreatic juices, are all vitiated and depraved, how is it possible that healthful nourishment can be prepared? I have seen, in the space of a few months, a man of the largest size, by the immoderate use of spirituous potation, reduced to a mere skeleton. Even when some degree of appetite remains, the food gives no support; for it cannot pass into the blood to recruit the deficient juices; hence emaciation of body and all its consequences. A few weeks' indulgence in raw spirit, or strong grog, in large quantity, will induce these diseases. Like many others which follow ebriety, they give little pain; and as the mental powers are lulled into stupor the greater part of the day, the approaches of an incurable malady are not sufficiently watched.

Syncope :—Palpitation.

Fainting fits and palpitation of the heart, sometimes accompany excessive debility from habitual bibacity; and are called nervous symptoms. But the most alarming degree of these evils is, when they are the effects of organic affections of the heart, pericardium, and large blood-vessels. A hydrothorax, dropsy of the pericardium, ossification of the valves of the heart, coronary arteries, and aorta itself have all been discovered by dissection in the bodies of men subject to temulency*. The patient commonly dies suddenly at last; after being long tormented with anxiety of the most distressing kind, frequent fainting fits, fearful dreams, that make him start from his sleep with signs of the utmost terror and agitation, and great dejection of spirits. To these may be added, those symptoms which constitute the "*Angina Pectoris*" of some authors. The subjects of these horrid complaints seem to undergo, every hour, all the pangs of dissolution. They rank among the most fatal and terrible evils of this gloomy catalogue.

* Morgagni, Lib. II. Epist. xxvi. 13—57. Epist. xxviii.

Diabetes :—Excessive Discharge of Urine.

The majority of persons whom I have known subject to diabetes, were lovers of the bottle. About the proximate cause of this disease, various opinions have been given by physicians : in this place, therefore, I shall be permitted to refer it to some depravity of the organs of digestion. I suspect that many drunkards have this complaint upon them without taking notice of it ; and that it comes and goes, without creating alarm, just as they happen to live regular or otherwise. Dr. Rollo, of the Royal Artillery at Woolwich, has lately published an ingenious chemical *Theory of Diabetes* ; and his practice has been attested by some striking cases, one of which I attended for a short time. It there appears, that the saccharine urine always followed the use of malt liquors, and such other matter as contained the basis of the saccharine acid : and was cured by a diet in every respect highly animalised, and directly opposite to the articles just mentioned. Hepatic diseases being so common from hard-drinking, and the bile being so important an ingredient in preparing the chyle and the blood, are

presumptive proofs, that diabetes may derive much explanation from these sources : but what chemical analysis can unfold the nice operations, and wonderful arcana of Nature !

It is impossible to mention the name of Dr. Rollo, without adverting to the valuable reformation he has effected in the Artillery Hospital at Woolwich. The success of these measures affords a striking contrast to the opposition which I met with in attempting similar improvements in the naval department*.

Locked Jaw.

This disease is more frequent in warm than cold climates : it has succeeded a fit of ebriety when the patient, in the exhausted state, has slept in the open air, or been exposed to the chilly damps of the evening. I think a case of this description is mentioned by Dr. Girdlestone.

Palsy.

Tremors and paralytic affections are common followers of the *apoplexia temulenta*. The head

* Vide Med. Nautica; where all the late corrections are detailed, and others pointed out for the information of posterity.

and hands of some inebriates, particularly in the morning, shake and tremble ; but regain their usual strength, and become steady, as the dose of stimulus is repeated. Men of this description are a kind of living thermometers ; as the blood warms, their spirits rise ; and when it cools again, by withholding their dram, they sink into languor and dejection. When affections of this kind make their appearance, the wretched inebriate has almost finished his career of dissipation : the *silver cord* of life is nearly loosed, and the *wheel broken at the cistern* !

Ulcers.

When habitual intoxication has sufficiently weakened the solids and polluted the fluids of the body, it also excites diseases of the skin, that readily run into foul and incurable sores. Instances of this kind are to be daily met with in private life.

An ulcer, the most malignant of its kind, on record, during the late war, infested particular ships in the Channel Fleet : and commonly affected a large proportion of the crew before the disposition to it could be overcome. The

character of this sore was directly opposite to that of the scorbutic ulcer; and what was found a certain cure for scurvy, had no effect on the Channel sore*. The least scratch on the skin, the puncture of a lancet, the blistered part, but especially scalds and burns, degenerated into this ulceration, with a rapidity not to be conceived. Large loss of muscular flesh from sloughs, and caries of bone, were the consequence. A long history of this epidemic ulcer, is given in the second and third volume of *Medicina Nautica*. From a fair and extensive view of all the facts connected with its production, I have referred the cause to the *inordinate use of spirituous liquors*. An unusual fœtor attended this sore, beyond what even large sloughs occasion.

Madness and Ideotism.

“ Reputation ! Reputation ! Reputation ! O !
 “ I have lost my reputation ! I have lost the im-
 “ mortal part, Sir, of myself : and what remains

* Although I have admitted that this ulcer was much owing to spirituous liquors, and, like scurvy, was aggravated by them; yet there was this difference, that the sore was considered as a disease of the *port*, when the crew lived on *fresh meat*; while the scurvy was owing to *privation of vegetables*, and chiefly occurred *at sea*.

" is bestial.—Drunk ? and speak parrot ? and
 " squabble ? swagger ? swear ? and discourse,
 " fustian with one's own shadow ? O, thou in-
 " visible spirit of wine, if thou hast no name to
 " be known by, let us call thee—Devil !—I re-
 " member a mass of things, but nothing dis-
 " tinctly : a quarrel, but nothing wherefore.—O !
 " that men should put an enemy in their mouths,
 " to steal away their brains ! that we should with
 " joy, revel, pleasure, and applause, transform
 " ourselves into beasts !—I will ask him for my
 " place again : he shall tell me I am a drunkard !
 " Had I as many mouths as Hydra, such an
 " answer would stop them all. To be now a
 " sensible man, by and by a fool, and pre-
 " sently a beast ! O strange ! Every inordi-
 " nate cup is unblest, and the ingredient is a
 " Devil*."

Drunkenness itself, is a temporary madness.
 But in constitutions where there is a predisposi-
 tion to insanity and ideotism, these diseases are
 apt to succeed the paroxysm, and will often last
 weeks and months after it. Wounds and contu-
 sions of the brain and cranium, with other or-
 ganic lesions, have a similar effect. I have
 known numberless instances of these kinds of

* Shakspeare, Othello.

*Mania** and *Amentia*†. In courts of justice we often hear of men, who are convicted of improper conduct, pleading for mitigation of punishment, from acting under temporary insanity. A small quantity of liquor is apt to derange these people: in such subjects the blood would appear to be over accumulated in the head, or circulates unequally there, and thus causes delirium. Seamen, who are so much exposed to blows and wounds of the head, from the nature of their duty, are very liable to affections of this kind.

But independent of constitutional predisposition, or lesions of the brain, the habit of drunkenness will bring on madness and ideotism. They sometimes follow a stroke of apoplexy. It is indeed certain, when this habit has been long indulged, that the structure of the brain becomes more or less injured. Morgagni, in his celebrated work, *De Causis et Sedibus morborum*, has furnished us with many instances of the substance of the brain being much altered, as appeared by his dissections of drunkards. These instances exhibited the same changes from the healthy structure, which are to be found in the brains of

* Paraphrosyne Temulenta Sauv. Sp. 1.

† Amentia a Temulentia Sauv. Sp. 7.

maniacs and ideots. In some it was found of a much firmer consistence than usual; and in others more flaccid*: the cerebrum and cerebellum more soft †: the cerebrum cerebellum, and nerves, were all extremely soft ‡; the substance of the brain was yellow and soft, seemed corrupted §: a boney substance, and very hard gypseous concretions were found, *in opposito nervorum thalamo* ||: the trunks of the arteries in the meninges, and even their branches, which extend to the *plexus choroides*, much thicker, and harder than natural; and, when dried, discovered a boney disposition in different places ¶.

* Tamen ea firmitudine cerebrum fuit, ut durius ad id tempus a me dissectum esse non meminissem. Lib. i. Epist. viii. 6.

Portio cerebelli flaccida erat, &c. Lib. i. Epist. ii. 22.

† Cerebrum et cerebellum moliora, &c. Lib. i. Epist. iii. 6—16.

‡ Cerebrum, cerebellum, et nervi, summa erant flacciditate, &c. Lib. i. Epist. v. 11.

§ Substantia cerebri flava ac flaccida quæ corrupta videbatur, &c. Lib. i. Epist. xi. 6.

|| Ossiculum, vel concretum gypseum durissimum, in opposito nervorum thalamo, &c. Epist. xi. 7.

¶ Sed in tenui meningi arteriarum, trunci omnes, omnesque item earum rami, iique presertim, qui versus plexum choroidem contendunt, multo erant crassiores æquo, et duriores, exsiccatique osseam pluribus in locis naturam ostenderunt. Lib. ii. Epist. xxvii. 28.

If the source of sense and motion is thus liable to be affected by spirituous potation, we need the less wonder at the loss of the mental faculties. How justly, then, may we exclaim, in the emphatic language of Shakspeare, "*Every inordinate cup is unblessed, and the ingredient is a devil !*"

Melancholy.

What I have before said on dyspepsia will supersede many remarks that might have been made under this disease. The melancholy of drunkards, I fancy, is seldom or never found without dyspeptic symptoms. Indeed dyspepsia; hypochondriasis, and melancholia; would only appear to be different degrees of the same complaint. Thus indigestion, proceeding from a debilitated condition of the chylopoetic viscera, without nervous affections, may be called simply *Dyspepsia*. But when apprehensions of danger, ill-grounded fears, and low spirits, accompany impaired digestion, the disease may then be named *hypochondriasis*. And when both these affections are present, while at the same time the mental disquietudes arise to derangement of intellect, or delirium, then only would I call the

disease *Melancholy*. The morning hours of a drunkard, when the bottle has been long withheld, often exhibit the last degree of dejected spirits, which are apt to bring on hallucination of mind. The habit of ebriety feeds itself. In the absence of stimulus, the ideas have all a gloomy cast, and every feeling is unpleasant : there is an aching void that nothing can fill up but a renewal of the cup ; which is no sooner quaffed than another is desired : thus by degrees the brain is injured in its structure by violent actions and every species of delirium is the consequence.

Impotency, and Abolition of the Sexual Appetite.

There is scarcely an organ of the human body that does not, in its turn, receive some depravity from habitual temulency. Impotency may be occasioned here by a paralysis of those muscles which are employed in the sexual intercourse ; but the appetite itself is certainly destroyed in time : the sot loses all feelings of love. The fair sex ought at all times to show their utter aversion to a drunkard, and to consider it an insult when he dares to approach them. This deportment in the female part of society, would be the strongest preventive against the vice that

could be found ; for it annihilates all virtuous attachment among the sexes, and is the greatest foe to sentimental love.

With equal justice, the habit of temulency has been said to debilitate the offspring, and produce a puny race. It is a known law in the animal economy, that all secreted fluids partake of the vices of the secreting organ. A healthy action is required in every gland, that it may secrete healthy juices. We have seen that the mental functions become deranged, when the brain is injured in its structure. And if this happens, can it be too gross to suppose, that the organs of generation must equally suffer in both sexes, from frequent intoxication ; and if offspring should unfortunately be derived from such a parentage, can we doubt, that it must be diseased and puny in its corporeal parts ; and beneath the standard of a rational being in its intellectual faculties ?—The best antidote against evils of this description in society is early marriage : which, by preserving the body healthful, and the mind pure, gives the best chance of transmitting these qualities to the progeny.—The *sum total* of all the diseases which flow from habitual drunkenness, is

Premature Old Age.

The wrinkled and dejected visage, the bloated and sallow countenance, the dim eye, the quivering lip, the faltering tongue, *sans teeth*, the trembling hand, and tottering gait, are so many external signs of bodily infirmity: while weak judgment, timidity, irresolution, low spirits, trifling disposition, and puerile amusements, discover a mind poisoned by the bowl of excess, not broken by the hand of time!

Diseases of Infants during Lactation.

If diseases of so serious a nature appear in adults, from the inordinate use of vinous spirit, how much more liable must feeble infancy be to suffer from the same. I am afraid that this is no uncommon observation. It is well known that nurses, if they can deserve such a name, are in the practice of giving spirits in the form of punch to young children to make them sleep. The effect cannot fail to be hurtful: such children are known to be dull, drowsy, and stupid;

bloated in the countenance, eyes inflamed, subject to sickness at stomach, costive, and pot-bellied. The body is often covered with eruptions, and slight scratches are disposed to ulcerate. To these, bowel complaints may be added.

Again, the food of women who suckle their own children is often very improperly selected. The quantity of the milk, not the quality of it, is studied. It is a well known fact that this secretion partakes very much of the nature of the diet that is used; that is to say, certain articles pass through the breast unassimilated: vegetables give a more ascendent milk than animal food; but all drinks, containing *ardent spirit*, such as wine, punch, caudle, ale, and porter, must impregnate the milk; and thus, the digestive organs of the babe must be quickly injured. These must suffer in proportion to the delicacy of their texture; and the diseases which flow from this source are certainly not uncommon. Physicians who have prescribed a diet and regimen for nursing mothers, have not sufficiently attended to the hurtful effects of wine and malt liquors. Porter is generally permitted in large quantities on these occasions; a beverage, if there is any truth in our remarks, highly im-

proper and dangerous. It would be foreign from the nature of this work, to extend the subject farther; but it seemed necessary to introduce it, in a book that professedly treats of the effects of ardent spirits, on the living body.

CHAP. V.

The Method of correcting the Habit of intoxication, and of treating the drunken Paroxysm.

We curse not wine : the vile excess we blame.

Armstrong.

FROM what has been said in the preceeding pages, the importance of this part of my subject will be readily admitted. A train of complaints of the most dangerous nature, at once destroying the body, and depraving the mind, are the certain followers of habitual ebriety. Amidst all the evils of human life, no cause of disease has so wide range, or so large a share, as the use of spirituous liquors. When we see dropsies, apoplexies, palsies, &c. multiplying in the bills of mortality, we must look to hard drinking as the principal agent in bringing on these maladies. More than one half of all the sudden deaths which happen,

are in a fit of intoxication ; softened into some milder name, not to ruffle the feelings of relations, in laying them before the public.

This vice must have prevailed early among mankind ; and all good legislators have endeavoured to oppose its progress in society. Among the Athenians, by a law of Solon, the magistrate who became drunk was put to death ; inferior degrees of punishment fell upon other orders. Drunkenness was proscribed at Lasæmon by the laws of Lycurgus ; and, to excite horror among the children, against a vice so brutal and degrading, the drunken slaves were exposed before them*. The ancient Saracens and Carthaginians drank no wine. The Nervii used no vinous liquor, because it made them lazy and effeminate †. Among the Romans the vice was odious : the whole history of this republic does not mention such a phrase, as a habit of intoxication. The women were punished capitally if guilty of it : and the custom of saluting women is said to have been introduced, to discover whether they drank spirituous liquors. Ebriety is at all times

* Plutarch.

† Cæsar de Bello Gallico. Lib. ii. cap. viii.

degrading in men ; but in women it is disgusting and abominable. The Koran of Mahomet expressly denies wine to the Mussulman. The Cherokees, a tribe of Indians in North America, have forbid, under the most severe penalties, the use of spirituous liquors, among their countrymen, from having seen some of the neighbouring nations nearly extirpated by their use.—What can Christian Britain offer against these authorities ?

Drunkenness prevails more in cold climates than in warm : physical causes may, in a great measure, explain this. Heat is one of the great supports of animal life : it bestows on the mental faculties cheerfulness and vivacity ; and the inhabitants of hot countries are observed to be more gay and volatile than those of the northern regions. As heat supplies abundant stimulus, the constitution, therefore, needs less excitement from diet. But the shivering native of Lapland or Labrador, whose temperature of climate, for a great part of the year, descends beneath the freezing point, feels an unusual glow and animation from spirituous potation, which he cannot obtain from his wintry skies. His atmosphere thus conspires to make him a drunkard : because, when he first tastes a bever-

age that imparts cheerfulness and strength ; he is not aware that it is the first step to a course of indulgence, that must ultimately impair his health, and abridge his understanding*. Dr. Falconer, in his Essay on Climate, says, “ If “ we go from the Equator to the North Pole, “ we shall find this vice increasing, together “ with the degree of latitude. If we go from “ the Equator again to the South Pole, we “ shall find drunkenness travelling south, ex- “ actly in the same proportion to the decrease of “ heat.”

When ebriety is frequently repeated it becomes hurtful in proportion to the heat of the atmosphere. The feverish heat which it creates, joined to that of a tropical climate, must the sooner bring on some fatal disease ; or more speedily exhaust the strength of the body by excessive stimulation. This fact is daily exemplified among European soldiers and seamen, as well as new-comers, in the West India islands, who, after getting drunk on cheap new rum, expose themselves in the sun, or in the night sleep while the heavy dews are falling ; and thus become liable to those acute diseases that carry

* *Vide* Raynal's Hist. of America.

them off in a few days, in despite of all medicine. The French soldiers and seamen, by being more temperate in living than Englishmen, suffered less from the fevers of these regions, in former wars. But this does not appear to be the case at present in San Domingo, where Frenchmen have died in greater proportion than even our troops, while we possessed that unwholesome island. It is well known that the modern armies of France are much addicted to drinking spirits; and many of their greatest victories are said to have been obtained under the fury inspired by dram-drinking; the spirits being supplied to the soldiers while engaged, by women who attended them for that service. This is a species of prowess which our tars call *Dutch courage*; and which, I hope, will never be resorted to by Britons in the present contest with France.

This vile habit, it appears, was less known in Britain three hundred years ago than it is at this time. Mr. Cambden, in his Annals, under the year 1581, has made this remarkable observation:—"The English, who hitherto had, of all the northern nations, shewn themselves least addicted to immoderate drinking, and been commended for their sobriety, first learn-

“ed, in these wars in the Netherlands, to swallow large quantities of intoxicating liquors; and to destroy their own health by drinking that of others.” I am much afraid that some later wars in the same countries have not greatly encouraged sobriety*. The Roman armies were allowed only vinegar and water in all their expeditions; yet with this simple beverage they conquered the world!

It cannot be doubted that the convivial disposition of the inhabitants of Great Britain and Ireland, has a strong tendency to extend the habit of ebriety. There is no business of moment transacted in these islands without a libation to Bacchus. It prevails among the Peers of the realm and down to the parish committee. These convivial parties are a luxuriant scyon of a free country; where all ranks and degrees of society meet to enjoy friendly intercourse, without the dread of interruption from a jealous Inquisition, or the domiciliary visits of a tyrant's spies. But they have often the bad effect of mixing the profligate with

* A certain general gave it out in public orders, that no officer, who dined at his table, should exceed *two* bottles of wine !!!—Let it be recorded to the honour of our triumphant NAVY, that our commanders in chief never allow more at their tables than *half* a bottle!

the good, and debauching the sober citizen : a certain number of bumper-toasts are to be gulped down on these occasions, without discriminating the weak head and sickly stomach from the constant wine-bibber. As the wine sparkles the spirits mount, and the heart dilates : man is an imitative animal, and quickly assimilates with his associates. The resolutions that were formed in the cool part of the morning, soon dissolve before the warming influence of a new toast and a fresh bowl. Thus clubs are formed ; one party begets another ; dinner succeeds to dinner ; till the man who startled once, at a half-pint, now staggers home under the load of one bottle more ! *Evœe Bacche !* The man who was social at first in his cups, soon becomes convivial, and ends his career as a sot.

It is no uncommon practice with certain weak-minded persons in this country, on particular occasions, to allow merry meetings to workmen ; when drunkenness, with all its evils, is a frequent consequence. These sorts of people have much pleasure in having their healths drank by great crowds, and delight in the revelry and noise which are occasioned. Surely a better plan would be, to give them a little food to carry home to their families. There is a dreadful account of

a meeting of this kind in Russia, which happened in 1779. “ One of the farmers of the brandy duty, who had made an immense fortune by his contract, proposed to give a feast to the inhabitants of the city, (Petersburgh,) in testimony of his gratitude to those who had enriched him. The victuals, the beer, and the brandy, which he caused to be served, cost him 20,000 rubles ! The populace flocked in crowds to the place, adjoining to the summer gardens, where he gave this enormous repast ; and in spite of the precautions that had been taken, disturbances soon arose, among this motley throng of guests. The contentions first began about the places, and the better kind of provisions spread upon the board : from struggles and noise they proceeded to blows. Several persons were killed : others became so intoxicated that they fell asleep in the streets and perished from the severity of the weather. The number of people, who lost their lives, amounted in all, to at least 500 !*” What a crime it was for this purse-proud wretch to bring a multitude together to poison them ! Let those who are

* Life of the Empress Catherine II. vol. ii.

fond of such treats to the people, think of this example.

It has been asserted, that one of the best antidotes against intoxication is, for the sober man to witness the actions of the drunkard. With a mind as yet pure and unsullied with debauch, such a sight must be highly disgusting, and amidst the rigid manners of a Spartan education it might have great weight. But evil communications corrupt good manners : vice, by being often seen, loses its deformity ; and the best of young men have become sots from the contagion of example. A drunkard reeling to and fro in the streets, seldom escapes the insults and mockery of schoolboys. But the same boys, when grown up to men, do not always preserve the same hatred and contempt for the practice. The babbling sot may, for a time, be their sport and derision ; but a frequent view of the object wears off the sensibility of the eyes ; and what they once beheld with dislike, becomes now their friend and associate.

The custom of introducing a drunken man on the stage, is one of the meanest expedients of an author, to raise a laugh. Some of the wretched comedies of the present day, are particularly disgusting on this account. An audience should

never be taught to countenance a vice that deforms our nature, by applauding the jests and wit of an inebriate. It serves to loosen the bonds of virtue, and familiarizes the young beholder to a practice that may terminate in his ruin. *Procul esto, profani !*

The allegory of the companions of Ulysses being transformed into swine, is a fine emblem of this degrading habit. The product of the vinous fermentation is not inaptly typified in the following lines of Ovid :

———misceri tosti jubet hordea grani,
Mellaque, vimque meri, cum lacte coagula passo,
Quique sub hâc lateant furtim dulcedine, succos
Adjicit.

A modern London porter-brewer, who mixes *opium and coculus Indicus* with his liquor, may be justly compared to the sorceress Circe, in thus compounding her charms and hog-transforming cup :

Quæ simul arenti sitientibus hausimus ore,
(Et pudet et referam,) setis horrescere cœpi,
Nec jam posse loqui ; pro verbis edere raucum
Murmur ; et in terram toto procumbere vultu :
Osque meum sensi pando occalescere rostro ;
Colla tumere toris, et qua modo pocula parte,
Sumpta mihi fuerant, illa vestigia feci.
Claudor harâ.

OVID. MET. Lib. xiv. Fab. v. vi.

Man, the lord of creation, when by excess and bebauch he has lost the faculty of reason, is not only levelled with the brutes, but seems to lose the respect of inferior animals. The generous horse, when mounted by a drunkard, forgets his wonted spirit and dignity of mien, as if ashamed of his burthen. The dog, at all other times faithful to man, feels his attachment insulted when he follows a staggering master. There must indeed be something striking in the manner and countenance, between sobriety and drunkenness; and why should they not be perceived by these sagacious domestic animals? Facts are not wanting to prove this, which have come under my own knowledge. A man, returning home at night when beastly drunk, was attacked by his own house-dog, that had observed such a change in his master's voice and appearance, that he probably took him for a hog or a thief. The noise waked the household, who were too late to save the fleshy part of the leg from being miserably torn.—A gentleman, after getting very drunk in his own house with some jolly companions, went to take the air in his garden, where he was observed by some favourite pointers: but, instead of their usual caresses, they set upon him with great fury; and, Acteon.

like, he was hunted round his own walks by his own pack. The consequences might have been fatal, had not his screams brought his servants to his assistance.

Ille fugit, per quæ fuerat loca sæpe secutus,
 Heu famulos fugit ipse suos: clamare libebat,
 Actæon ego sum, dominum cognoscite vestrum.

OVID.

The reception which the King of Ithaca met with, after a long absence, from his dog Argo, was very different from that of the two inebriates. Yet Ulysses was poor, and in rags, at his return: but his countenance was not altered by debauch, or his face and eyes flushed with wine. From his travels he had acquired much useful knowledge, *mores multerum vidit et urbes*: for these acquisitions the faithful dog seemed to feel a respect, and expired with joy at his feet. Had the King returned intoxicated with the cups of Circe that were drank by his companions, it is probable this friendly animal might have denied his lord and master.

But if the habit of intoxication is obnoxious in all men; in the character of the Judge, the Counsellor, and the Physician, it is peculiarly criminal. The man that is daily muddled with

wine can possess no lucid interval, or power of discernment ; he cannot discriminate between the evidence of right and wrong ; and thus he is equally liable to condemn the innocent with the guilty. Solon, in framing the Athenian code, seems to have been aware of this ; and another wise man has said, “ It is not for kings to drink wine ; nor for princes strong drink : lest they drink, and forget the law ; and prevert the judgment of any of the afflicted*.” The same maxims apply to the duty of the lawyer ; if not, the peace of society can never be secure against evil advisers. But in the physician the habit is still more dangerous. Other counsellors of mankind have stated portions of their time for business, but the accessions of disease are uncertain, and the physician may be wanted at the moment when his reason is overwhelmed with wine. If there is one profession more than another, that requires acuteness of apprehension, serious reflection, or calm contemplation, it is that of the physician ; for every case introduces him to something he never saw before. The world has, at all times, been little fit to judge of the medical character : because medical knowl-

* Proverbs, chap. xxxi ver. 4, 5.

edge is almost insulated from the common observation of mankind. But when you hear it asserted, that such a doctor can prescribe as well drunk as sober, you must pity the weak mind that could form the idea; or consider such language as blasphemy in the face of reason:—A drunken physician is not worthy to approach the sick-bed of a Hottentot. I mean not to debar the profession from the festive board; for, I think, of all men they stand most in need of relaxation, from the fatigues of business. Theirs is a continued round among scenes of pain, sorrow, and death: the man that employs a large part of the day in the gloom of a sick chamber is entitled to all the comforts that are derived from the society of the virtuous and good in the domestic circle; and ought to have his share of amusements in the company of the elegant and polite.

The seeds of this disease, (the habit of ebriety,) I suspect, like many other, are often sown in infancy. I do not merely allude to the moral education. In the present stage of society, human kind are almost taken out of the hands of Nature: and a custom called *fashion*, a word which ought to have nothing to do with nursing, now rules every thing. The early stages of our existence require a mild bland nourishment, that

is suited to the delicate excitability of a tender subject. But it too often happens that the infant is deprived of the breast, long before the growth of the body has fitted the stomach for the reception of more stimulant food. Instead, therefore, of its mother's milk, the infant is fed on hot broth, spiced pudding, and, perhaps also, that enervating beverage tea. The taste is thus early vitiated, the stomach and bowels frequently disordered; and, to add to the mischief, the helpless child is forced to gulp down many a nauseous draught of medicine, or bitter potion, that its unnatural mother may acquit her conscience of having done every thing in her power to recover its health. Dyspeptic affections are in this manner quickly induced: a constant recourse to medicine, wine, cordials, and spirits, must be the consequence; and the child of the fashionable lady becomes a certain *annuity* to physic; a drunkard at twenty, and an old man at thirty years of age. Parents and guardians would do well to calculate the effects of an appetite, early accustomed to stimulating food; and endeavour to prevent future bad habits, by suiting the nourishment to the period of life.

It may now be asked, at what age ought a child to begin the use of wine? To this I must reply, that spirits, wine, and fermented liquors of all kinds ought to be excluded from the diet of infancy, childhood, and youth. Natural appetite requires no such stimulants. Human blood, and healthful chyle, do not acknowledge *alkohol* to be an ingredient in their composition. The use of these liquors is hurtful in proportion to the tender age in which it is begun. The laborious rustic, whose chief beverage is water, or milk, toils through the seasons, is never troubled with dyspeptic complaints; and never suffers from low spirits or hypochondriacal apprehensions. Why, then, will the better orders of life, lay the foundation in infancy, for what are to be constant troubles to their children while they live?

When wine was first introduced into Great Britain, in the thirteenth century, it was confined to the shop of the apothecary: it would have been well had it been still confined there: but spirituous liquors are not mentioned at that period of our history. They were probably unknown till our army went to assist the Dutch in obtaining their independence. As an article of medicine the virtues of wine are sovereign in

their kind ; there are some diseases for which it is the best remedy, witness typhus fever. But the mind that leans upon it for support under afflictions, trusts to a broken reed, a false friend, a deception that lulls it into fatal security. The evils and misfortunes of human life must be borne with fortitude of a different kind, and opposed with religious and moral sentiments. These opiates of the soul do not terminate their operation by increasing the gloom, and inducing a severer paroxysm at its next recurrence. A man who gets drunk to forget care, should be reminded of the horror that will inevitably follow intoxication, on the first return of sobriety.

I am of opinion, that no man in health can need wine till he arrives at forty. He may then begin with two glasses in the day : at fifty he may add two more ; and at sixty he may go the length of six glasses *per diem*, but not to exceed that quantity even though he should live to an hundred*. Lewis Cornaro, the Venetian nobleman who lived upwards of a hundred, used fourteen ounces of wine in the day. The stimulus

* Let it be remembered that I only apply this quantity to the abstemious man who has never indulged in wine.

of wine is favourable to advanced age. The circulating system, after we pass the meridian of life, becomes less vigorous: and the passions that formerly added force and strength to the bodily movements, decline, and are less exciting. As the feelings and sensibility, therefore, grow blunt and dull, we can bear, not only with impunity, but with advantage, those exciters that would have done harm before. Wine, and all fermented liquors, by quickening the circulation of the blood, generate heat; and it is well known that increase of temperature is favourable to old age: heat stimulates the withered limb to motion, softens the rigid fibre, and opens the dry skin by augmenting the perspirable fluid. Thus aged people feel additional comfort in warm seasons and climates; and generally die in some of the winter months. For these reasons, wine has been aptly called the "*milk of old age*."

O! seldom may the stated hours return
 Of drinking deep! I would not daily taste,
 Except when life declines, even sober cups,
 Weak withering age no rigid law forbids,
 With frugal nectar, smooth and slow with balm,
 The sapless habit daily to bedew,
 And give the hesitating wheels of life
 Gliblier to play. But youth has better joys:
 And is it wise, when youth with pleasure flows,
 To squander the reliefs of age and pain?

ARMSTRONG, *Art of Preserving Health.*

In those families where gout and dyspeptic complaints are hereditary, the use of wine, and all other fermented liquors, ought to be cautiously guarded against in childhood and youth. The parent who offers them to the infant, whatever may be the motives of tenderness, ought to weigh the consequences. If the babe were left to the instincts of nature these articles would be the very last it would fix upon. Their qualities are so diametrically opposite to the mother's milk. The pleasure which they afford is momentary ; and every time they are resorted to, there is danger of the quantity being increased : of the evils which result from this practice there is no end. The child that is born of gouty and dyspeptic parents ought from its birth to be confined to the mildest food ; it ought to subsist on milk alone as long as possible : it must never taste wine, even diluted to the utmost, or beer of the weakest kind. Animal food, and broth made from that, light puddings, and different articles of cookery where milk forms the chief ingredient, will extend the diet as the child grows up ; and thus will be laid the foundation of a healthy constitution, and a temperate life. It is a contrary treatment that ensures the approach of these maladies ; and early gout is often fixed before the man arrives at

thirty. Such are the baneful effects of early bad customs ; for when the taste is once confirmed, whether for hot or cold articles ; substances sweet or sour, mild or acrid, they become so interwoven with habit, that we strive in vain to correct them. The late Dr. Cullen, in his Lectures, used to mention a family, all of whom were in the habit of taking a dram at a certain hour before dinner, about one o'clock. When the Doctor expressed his wonder at the practice, it was acknowledged by all, that if the time passed, or if they were from home, and did not get the usual dram, it was attended with a considerable *sense of consciousness*. In plain English, they had got into a very bad habit, and found themselves low-spirited for want of their cordial. This morning dram was probably inculcated by the example of some dyspeptic mother, or an arthritic father. The venerable Professor did not inform us of the future history of this odd family ; but I could almost venture to pledge myself, that the whole of them turned out to be drunkards. Indeed where the members of a family were so early initiated into pernicious customs by both precept and example, parents have no right to look for a regular life among their children. In this habit, as in all others, imitation has its pow-

erful effects ; and the man is spoiled in the arms of his nurse, while yet an infant.

Some intemperate men, it may have been remarked, have lived to a great age. That some drunkards have numbered eighty years and upwards, there can be no doubt. But what kind of life has that been ? half the time must have been spent under the impression of deranged intellect ; and their sober moments, if they had any, must have been a continued repetition of mental disquietudes, dejected spirits, and gloomy apprehensions. If, however, we admit that one drunkard now and then may exceed three score years and ten, the balance is much on the other side, when many thousands fall victims to the bottle before they arrive at thirty. Let the man of reflection only look round him in society ; and as he sees his acquaintance fall off by the diseases, mentioned in our catalogue ; if he has been conversant with the modes of living among these persons, he will find that intemperance in drinking has had a large share in bringing them to the grave.

But it is not drinking spirituous liquors to the length of intoxication only that constitutes intemperance. A man may drink a great deal, pass a large portion of his time at the bottle, and

yet be able to fill most of the avocations of life. There are certainly many men of this description, who have never been so transformed with liquor as to be unknown to their own house-dog, or so foolish in their appearance, as to be hooted by school-boys, that are yet to be considered as intemperate livers. These sober drunkards, if I may be allowed the expression, deceive themselves as well as others; and though they pace slowly along the road to ruin, their journey terminates at the same goal, bad health. They are commonly men of easy dispositions, and an indolent turn of mind; like the man whom Horace describes,

—qui nec veteris pocula Massici,
Nec partem solido demere de die
Spernit.

Of the quantity of liquor which some inebriates are capable of consuming, we have no accurate accounts. To a certain length, habit may enable a man to devour an enormous load: but we even see habitual drunkards in their decline, unequal to their former quantity. Their stomachs may still be able to retain it, but the head grows too weak to carry it. The organization of the brain has been injured. The blood-

vessels there become straitened in their capacity to receive blood; some are obliterated; while others are uncommonly dilated and distended: the substance of the brain also undergoes changes, becomes dry and harder; or soft and more flaccid than natural. To these may be added, bony, or stony concretions in different places of that organ; effusions under the cranium, and water in the ventricles. These lesions of the organic structure would seem to assist a smaller quantity of liquor in raising delirium, and for obvious reasons. I have heard it asserted that some coal-heavers and porters in London, will consume four gallons of ale or porter in the twenty-four hours. This quantity could not be long continued. I knew a marine, in a king's ship, who usually drank four gallons of beer in the day; but he soon grew bloated and stupid, and died of apoplexy. Among the numerous deaths from intoxication which have come under my own observation, or reported to me by surgeons, no seaman ever exceeded the bottle of spirit; whether rum of the common strength, or malt spirit, made in England, the most fiery of the whole. An officer of the hospital ship of the fleet, besides his allowance of wine, at the mess-table, usually drank a bottle and a half of gin in

twenty-four hours. His face, at times, was equal to Bardolph's, with bloodshot eyes, fetid breath, &c. He died of apoplexy and diseased liver. A midshipman of my acquaintance, only sixteen years old, drank in the West Indies, three gallons of punch daily. The ship did not remain long in the country: but he became a professed drunkard, and died lately in the Mediterranean. The following narrative may serve as an example of what is frequently done by a labouring man in an American town, who passes for a *sober citizen*. The daily quantity of spirits (bad rum) consumed by one of these persons, is as follows:

Before breakfast	2 gills.
Before dinner	3
By the time the day's work is done	5

Total 8 gills, or 1 quart; besides what he drinks in porter houses, clubs, and other meetings in the evening. The reporter admits that this practice proves fatal, but he does not say in what length of time, or what diseases are the sequel. If a sober American labourer can devour this quantity of spirit, what portion constitutes a drunkard in that country?

It is well that America receives her population from the old continent, otherwise her peasantry must soon die out. This account is taken from the Medical Repository of New York: it furnishes a shocking specimen of the morals of the lower orders of society in the northern provinces of the new world.

How far the rapturous effusions of poets, in the praise of wine, have tended to meliorate or deprave the moral character, may not be the province of a physician to discuss. I am ignorant of what stupendous works of genius have been planned by fancy, "*in a fine frenzy rolling*" over the fumes of wine. I rather suspect that such buildings may be compared to castles in the air. Thus a great name of the present day, whom this country looks up to, spoke of the deliverance of Europe from the horrors of the French Revolution with all the confidence of a prophet, who could look into the womb of time. He is styled by way of eminence, "a three-bottle man." But if it was under the influence of that quantity that he planned so many unsuccessful expeditions against the enemy, as a lover of my native land, I cannot help wishing that this great drinker had been confined to three bottles of water till he had fulfilled his promises to his countrymen.

When Philip king of Macedon invited Dionysius the younger, to dine with him at Corinth, he felt an inclination to deride the father of his royal guest, because he had blended the characters of the Prince and Poet; and had employed his leisure in writing tragedies. "How could the king find leisure," said Philip, to write "these trifles?"—"In those hours" answered Dionysius, "which you and I spend in drunkenness and debauchery*." This is an advice that I can safely recommend to princes, and all great men to whom the fate of empires may be consigned; as it is a more amiable employment to be a poet than a drunkard; and more honourable to write tragedies than to *act* them on the theatre of human life, among surrounding nations, as was done by Philip and Alexander.

Anacreon and Horace, who detail with so much pleasantry their convival hours, have shewn us but one side of the picture: the schirrous liver and the palsied limb, with all the nameless ills which the body suffers, before these mortal distempers appear, are thrown into the back ground. Yet the authority of some physicians may be quoted in support of the lively sallies of these

* Zimmerman on Solitude.

poets. Dr. Haller, a man alike famous for his piety and learning, says, “*Ingenium quod excitat vinum, ex eo clarissime intelligitur, quod ad poesin, quæ res ingenii est, mirifice disponat. Perpetuo ab antiquitate creditum est, et ipsa res docet, vini calorem, poetarum furorem, et impetum excitare : et Bacchi et Apollinis furem unum esse eundemque : quamobrem Ovidius vino carens, in exilio de se conqueritur ;*

“*Impetus ille sacer, qui vatum pectora nutrit,
“ Qui in nobis esse solebat, abest *.*”

Hoffman expresses himself much to the same purpose : “*Tam observamus omnes hos populos qui vino utuntur, longe ingeniosiores esse reliquis hominibus. Nullibi enim artes liberales, et disciplinarum studia melius floruerunt ac florent, quam dictis in locis : vina enim foveant vires, pituitam attenuant, mordaces curas humanis mentibus infestas abstergunt, vim animo reddunt, spiritus ascentiam sanguinis promovent, ingeniumque accuunt : unde non inepte vinum poetarum equus dictum est†.*”

* *Physiol. lib. xxii, sect. 1—13.*

† *Hoffm. De Temperamento.*

The language contained in these quotations, in my opinion, is more becoming the poet than physician. Poetry, the first of the fine arts, took its rise among shepherds in the early ages of society, when the manners of mankind, as well as their diet, were simple; when the fermentation of the juice of the grape was unknown, and when the vine itself, either sprung up spontaneously, or was only cultivated as a fruit-tree. Sentiments of the kind, with these physicians, we imbibe with our classical education; and we preserve them through life on account of the elegant taste and language in which they are written. But when we come to engraft them on the useful affairs of the world, they elevate the mind above the realities around it, and give a dangerous bias to the moral character. Our Milton has a beautiful Latin ode in praise of wine.

A modern British physician of great eminence, himself a poet, far above mediocrity, both in his medical and metrical works, has held a language very different from both Haller and Hoffman. He probably carries his antipathy to vinous potation too far; and attributes effects to it that are generally overcharged, if not incor-

rect*. He was no wine-bibber, and died lately about the age of seventy. But I have been told by a lady of great literary and scientific accomplishments, who had lived for weeks in the family, that he was rather a gross eater, and made amends for the want of vinous stimulus, by consuming large quantities of animal food. The muse of Darwin therefore received no inspiration from Bacchus, in singing the "tiny graces" of the plants,

To woo and win their vegetable loves. BOT. GARDEN.

As far as my own experience goes in resorting to wine against the fatigues of business, I think, if circumstances were fairly weighed, they do not much support the practice. I have always had more inclination than opportunities for study. In the practical duties of medicine I have, without prejudice, formed my observations at the sick-bed; and no physician ever encountered more anxiety for the fate of his prescription, or felt more sincerely for the recovery of his patient. My labours in some periods of the naval service, in point of mental and bodily exertion, have not been surpassed by any member

* *Zoonomia*.

of the profession ; nor has the least of these been my endeavours to rouse the apathy and torpid indifference to the subject of health in the navy, that pervades the public officers in this country. A great part of my life has been spent among men who are, from situation, said to be much addicted to ebriety : but in the present day, in this respect, naval officers, for sober living, are equal to any other description of persons. My whole experience assures me, that wine is no friend to vigour or activity of mind : it whirls the fancy beyond the judgment, and leaves body and soul in a state of listless indolence and sloth. This is confirmed by what I have observed of the habits of life among some great men whom I have had the honour to number as friends. The man that, on arduous occasions, is to trust to his own judgment must preserve an equilibrium of mind, alike proof against contingencies as internal passions. Even the physician requires this fortitude as much as any individual. He must be prompt in his decisions ; bold in enterprize ; fruitful in resources ; patient under expectation ; not elated with success, or depressed with disappointment. But if his spirits are of that standard as to need a fillip from wine, he will never conceive or execute any thing magnanimous or

grand. In a survey of my whole acquaintance and friends, I find that the *water-drinkers* possess the most equal temper and cheerful dispositions. But this does not exclude the temperate use of wine, which certainly is less in quantity than people commonly imagine*.

With respect to labour of body the same arguments apply. Vinous liquors for a while encrease muscular strength; but to a certainty bring on premature weariness and fatigue, with more inclination to sleep. Spirits have the same effects in a greater degree, and cause a greater consumption of pure air. In a warm season or climate, the best articles to use under severe corporeal hardships are the acid fruits, such as the lemon and orange, apple, &c. ; or in lieu of them, vinegar and water, as practised by the Roman soldiers. In winter, plain diet, with a due admixture of animal food, and moderate exercise, are the sure security of preserving warmth of body. Spirituous liquors, though generally practised, give but a temporary glow, and in the end render the effects of cold more speedily hurtful.

* Yet I know some men who are only temperate from the dread of exciting furious passions by the use of wine; their dispositions being naturally bad, they are afraid to drink.

A custom has long prevailed in this country of drinking wine while at dinner : this is downright pampering, and vitiates taste and healthful appetite. But if there is a guest at table who loves his bottle, it affords him an opportunity of getting drunk before the cloth is taken off, to the great annoyance of the company. This custom ought to be proscribed : “ *Thracum est.*”

A nobleman of my acquaintance, a flag-officer, a man of the most equal temper, who excelled in the mathematical sciences, was subject to hereditary gout ; which, by a temperate regimen, and the spare use of wine, he kept under till he was nearly sixty. After this he was seldom without an annual attack ; but which did not impair his general health, or deprive him of exercise. During a tremendous gale of wind in the month of february, while he suffered great anxiety for the safety of his fleet, he was much exposed to cold and was seized with a severe gouty paroxysm, which lasted many weeks, and left considerable lameness behind, as well as general debility. From habitual costiveness he had taken Glauber’s salts as a laxative for twenty years ; and his wine, a glass or two, always largely diluted. My opinion was, that a more stimulating plan was necessary ; that the cold purgative should be changed ;

and generous wine freely indulged. My advice was overruled by those who had long attended him, who said that it was impracticable to alter such long habits ; and he declined from that moment. In this case, wine, that was wisely withheld during the vigour of youth, would now, in old age, and under increasing debility, have been a certain remedy. A life so valuable ought to have been spun to its last thread ! Frail indeed is that art whose professors are jealous to have their merits tried by the laws of common sense.

There can be no doubt that many persons have to date their first propensity to drinking to the too frequent use of spirituous tinctures as medicines, rashly prescribed for hysterical and hypochondriacal complaints. There are patients who are continually craving after medical novelties, and are in the practice of taking every article that is warming and cordial. People accustomed to drink very strong tea, particularly those who indulge in the finest greens, run great hazard of falling into the same evil habit. Tea, in the present day, has a large share in the production of stomach complaints, and those affections usually called *nervous*. It powerfully stimulates the digestive organs for a while, and exhilarates the spirits ; but a proportional debility and de-

jection of mind succeed, till, like the dram, it must be made stronger and stronger, and is then followed by a train of dyspeptic symptoms, such as gastrodynia, acidity, flatulence, hysterics, barrenness, and all the evils which flow from a deranged nervous system. Souchong tea, used once-a-day, not made too strong, with a due admixture of cream and sugar, is a harmless and agreeable beverage. But hyson, and all the greens, are powerful narcotics, that destroy the stomach; and when a train of stomach complaints is once fixed, and continued by the use of tea, there is no person proof against the temporary ease which is obtained by spirituous potation, but whose permanent effects are disease, pain, derangement of intellect, a miserable existence, or premature death. There are certainly many well-meaning people who take frequent drams to relieve uneasiness of stomach, without at all suspecting that they are doing any thing wrong. When complaints arise from this habit, they very little consider their daily cordial as the cause of the mischief, and too often continue it till the breach in their health is irreparable.

There is another custom not uncommon in some families, but particularly at feasts and entertainments, the ceremony of handing cordials

found in the time of dinner, which is against all rules of temperance. It is deceiving the unwary : for I am sure there are many who drink of the *liqueurs* that would blush to taste brandy. Yet they are nothing more than brandy disguised. Many of these cordials are impregnated with narcotic substances, which add to the noxious qualities of the spirit. We were told by Dr. Mortimer, in the Philosophical Transactions that a man and his wife died paralytic, who drank daily a dram or two of brandy in which laurel-berries were infused*. The *liqueur* called *Noyau*, which is imported in greatest perfection from Martinique, is nearly allied to this, having all the flavour of the laurel-bitter, and may be readily imitated by bitter almonds. As the habit of ebriety is so difficult to be overcome, from whatever causes it began, so the best maxim is, “*ob- stare principiis* †.”

* Reid and Gray's Abridgement, vol. vi. p. 270.

† The kernels of the *drupaceous* fruits have a flavour exactly resembling the laurel-bitter, which is obtained from the leaves of the cherry laurel ; *Prunus lauro-cerasus* of Linnæus. The flowers and leaves of this tree are sometimes employed to season dishes and sweetmeats. About the year 1728, they were first discovered to be poisonous, as narrated by Dr. Madden of Dublin in the Philosophical Transactions. Experiments have since been made

However seducing the love of inordinate drinking may be, like other bad habits, mankind seldom get into it once. There is a gradation in the vice. When the drunkard feels himself falling as it were in the scale of being, he forsakes his former friends, seems to shun his honourable acquaintance, and slides by degrees into the company of men whom he lately despised. Some struggles of sensibility, some compunctious visiting, cannot fail to attend such a transition. A few years ago I met an old and once valued friend in a public walk : being short-sighted I did not perceive him for some time, and he made no advances to speak to me. I observed him more slovenly in his dress than usual, and his face rather bloated : I requested the favour of his company to dinner, which he accepted in an embarrassed manner, and came. But alas ! *quantum mutatus ab illo !* At dinner his conversation was all in broken sentences ; his fine literary taste was gone : and the feast of reason and the flow of soul had no share in our entertainment. He

on the subject by different physicians and naturalists, particularly the Abbe Fontana. In the year 1780, Captain Donellan was tried and condemned for the murder of Sir Theodosius Boughton his brother-in-law, by putting laurel-water into vials that were supposed to contain medicine, which were swallowed, and proved fatal

drank incessantly of sherry, as if insensible why he did it, and filled bumpers every time. I was called out of the room on duty, but before I returned he had finished another bottle of wine.— It is painful to add, in a few weeks he was confined in a mad house ! I could trace no cause for the pernicious habit in this accomplished young man but the effect of a proud spirit broken by disappointments in his profession.

When ebriety has become so far habitual that some disease appears in consequence, the physician is for the first time called in, and a task the most ungrateful devolves upon him. If friends and relations had taken the alarm before to save the constitution of the patient, it will at once be found that their attempts proved unsuccessful. Whatever this disease may be, whether stomach complaints, with low spirits, permature gout, epilepsys jaundice, or any other of the catalogue, it is in vain to prescribe for it till the evil genius of the habit has been subdued. On such an occasion it is difficult to lay down rules. The physician must be guided by his own discretion: he must scrutinize the character of his patient, his pursuits, his modes of living, his very passions and private affairs. He must consult his own experience of human nature, and what he has

learned in the school of the world. The great point to be obtained is the confidence of the sick man; but this is not to be accomplished at a first visit. It is to be remembered that a bodily infirmity is not the only thing to be corrected.

The habit of drunkenness is a disease of the mind.

The soul itself has received impressions that are incompatible with its reasoning powers. The subject, in all respects, requires great address; and you must beware how you inveigh against the propensity; for the cravings of appetite for the poisonous draught are to the intemperate drinker as much the inclinations of nature, for the time, as a draught of cold water to a traveller panting with thirst in a desert. Much vigilance will often be required in watching these cravings; for they are sometimes attended with modes of deception, and a degree of cunning, not to be equalled. I have known them employ force in the rudest manner in order to gratify their longing after spirituous liquors. I firmly believe that the injudicious and ill-timed chastisement of officious friends have driven many unfortunate inebriate to ruin, that might have been reclaimed by a different treatment. Nay, if such corrections are applied when the mind is ruffled with nervous and hypochondrical feelings, and depressed with

low spirits, which so frequently follow a last night's debauch, the consequences may be fatal ; and it is well known that suicide has sometimes been first resolved upon after these ghostly admonitions.

When the physician has once gained the full confidence of his patient, he will find little difficulty in beginning his plan of cure. I have on several occasions wrought myself so much into the good graces of them, that nothing gave them so much alarm or uneasiness as the dread of declining my visits after they had been argued out of the pernicious practice. This confidence may sometimes be employed to great advantage when your regimen is in danger of being transgressed, for frequent relapses, and promises repeatedly broken, will, in such situations, render the physician's visits a work of great trial to his patience. This disease, I mean the habit of drunkenness, is like some other mental derangements ; there is an ascendancy to be gained over the person committed to our care, which, when accomplished, brings him entirely under our control. Particular opportunities are therefore to be taken, to hold up a mirror as it were, that he may see the deformity of his conduct, and represent the incurable maladies which flow from perseverance

in a course of intemperance. There are times when a picture of this kind will make a strong impression on the mind ; but at the conclusion of every visit, something consolatory must be left for amusement, and as food for his reflections.

It has been a doubt with some physicians, whether even, if the patient were willing, it is proper all at once to leave off wine or spirits. The body being long accustomed to this stimulus cannot be deprived of it, without sustaining manifest injury. This mode of reasoning is founded on the observation that habit has a powerful influence over many of the actions of the animal economy ; it becomes a part of our nature, and some important operations of living system are entirely governed by it. The general fact being admitted, it does not follow that such long continued stimuli as have a tendency to destroy the functions of the body, should not, all *at once*, be laid aside. Let us suppose a person for years living in a dungeon, unwholesome and unventilated, till diseases appear from these causes, would any rational being hesitate a moment to bring forth the squalid sufferer into the light of day, that he might have the full benefit of pure atmosphere ? The case is exactly in point ; the confined

person has been breathing poison, and the drunkard has been swallowing it ; he has drank poisonous spirit till it has brought him to the verge of the grave, and yet it is held dangerous to take it away. The practice of physic is sometimes so tightly laced in its technical habiliments that it is incapable of turning round ! But it does not appear that ever the living body could accustom itself, strictly speaking, to the use of *alkohol*. The habit of intoxication belongs to the mind. The nature of the human stomach cannot accommodate itself to ardent spirit, and dyspeptic symptoms are the early signs of its being hurtful. The nervous, villous, and muscular coats, the gastric and mucous follicles of the stomach, instead of feeling it necessary for their functions, by every repetition of the draught, resist it the more till at last digestion is overcome, a fixed disease takes place in these organs, and the fibres become hard and insensible. It is true, that during all these corporeal ailments the mind is gradually forming a bad habit ; it receives pleasure from the first, but the body nothing but disease and pain. We daily see in all parts of the world, men, who by profligacy and hard drinking, have brought themselves to a jail ; yet if we consult the register of the prison, it does not ap-

pear that any of these habitual drunkards die by being forced to lead sober lives. If at any time an inebriate dies after he has been compelled to temperance, his death is not to be attributed to the want of spirituous potation, but to the too long continuance of it, which rendered his disease incurable. The whole of these arguments tend to prove that vinous stimulus may be safely relinquished *at once*; the debility of the body, if any exists, is then to be cured by whatever may restore the weakened organs. In most cases nature will effect this, as these organs have only been exhausted by unnatural means.

But, in attempting to subtract the vinous potation by little and little, a difficulty arises which every one conversant with the subject must have observed. As soon as the limited portion of liquor is swallowed, an agreeable glow is experienced; and by it so grateful a feeling is conveyed to the mind, which in an instant connects the chain of habit, that is our duty to break. This glow and feeling are associated in the patient's mind with all those pleasurable sensations he has been accustomed to receive from his former bumper. He therefore reasons with himself that he finds much relief; and as he is aware that the effect of the present dose will only be of short du-

ration, he must take another to prolong his reverie, and ward off some intruding care. With a second glass he finds more pleasing objects presented to his imagination, and then he is urged to try a third. His depressed spirits, fears, and apprehensions have now vanished : he is so happy within himself that he despises fortune, and views the world with contempt ; thus he goes on, libation after libation, till he sinks into a drunken slumber.

The happiest he of all that e'er were mad,
Or are or shall be, could this folly last.

The morning visit of his physician will be introduced with the inquiry about the quantity of wine drank yesterday, and how he slept in the night ? He will probably tell his physician frankly that he rather exceeded his allowance, but slept well. But the morning account ; ate no breakfast, pain about the region of the liver worse, great flatulence, cardialgia, thirst, headach, &c. Such is the tenor of these consultations, repeated day after day ; the patient must be treated *secundum artem*, and nature is drove out of the house. Dr. Lettsom, in his little work on Drunkenness, tells us of a man that dropped a bit of sealing wax into his dram-glass every time he drank, till he

filled it, and by this means gradually got the better of his habit. Whatever truth may be in this narrative, surely neither Dr. Lettsom or any other physician could be childish enough, to imitate it; for there could be no danger in filling the glass at once, if the cure of the patient depended on that.

Again, are not habits of drunkenness more often produced by mental affections than corporeal diseases? I apprehend few people will doubt the truth of this. Does not the inebriate return to his potation rather to raise his spirits, and exhilarate the mind, than to support and strengthen the body? The diseases of body, if unattended with dejection, have no need of vinous stimulus; and three-fourths of the human race recover daily from all the stages of debility without ever having recourse to it. With drunkards therefore my opinion is, and confirmed by much experience, that wine, malt liquor, and spirits, in every form, ought *at once* to be taken from them.

As far as my experience of mankind enables me to decide, I must give it as my opinion, that there is no safety in trusting the habitual inebriate with any limited portion of liquor. Wherever I have known the drunkard effectually reformed, he has at once abandoned his potation.

That dangerous degree of debility which has been said to follow the subtraction of vinous stimulus, I have never met with, however universal the cry has been in its favour; it is the war-whoop of alarmists; the idle cant of arch theorists.

I have mentioned, above, the necessity of studying the patient's temper and character, that we may acquire his confidence. These will lead us to the particular cause, time and place of his love of the bottle. The danger of continuing his career may be then calmly argued with him, and something proposed that will effectually wean his affections from it, and strenuously engage his attention. This may be varied according to circumstances, and must be left to the discretion of the physician. “*Mutatio loci, si ex doloribus cordis, vel adversis fortunæ aut amoris malum increvit, plurimum proderit. Hunc castra et arma; hunc musæ omnes; hunc artes elegantes; hunc rus amænum; illum venatio et variæ exercitationes suaviter occupabunt; hunc negotia magis seria non male detinebunt. Et breviter cupiditas vini iisdem modis vincenda, distantia et absentia, quibus amator imitem dominam e pectore suo pellit*.*”

* *Dissertatio de Ebrietate, &c.* p. 38. Edin. 1788.

In order to strengthen the body if debilitated, general remedies, as commonly employed, may be resorted to; such as the cold bath, chalybeate waters, exercise in the open air, condiments, vigorous diet, &c.

The waters of Bath are in considerable repute for their efficacy in recruiting the worn-down constitution of inebriates. But this means of relief can only be obtained by the wealthy: the greater part of our patients must be content with cheaper remedies at home. To those who can afford a journey to Bath, for the purpose of using its waters, I can have no objection to the trial. These waters are now found, by the superior chemical analysis of Dr. Gibbes, to contain iron in a very diffused state; from which it is fair to suppose their medical qualities chiefly arise. This city also affords many elegant amusements, that may be consoling to a man who has just forsaken an unkind attachment. That species of *etiquette* which one is forced to go through in fashionable circles, and among trifling entertainments, may, on particular people, have a powerful influence in introducing new trains of thinking. The hours are there well adapted to the comfort of invalids. I would recommend people who visit this gay watering-place to keep a diary

of the pleasures and acquaintance, such as, the number of fine women; a list of widows and amount of their jointures; a catalogue of the fortune-hunters; what ladies are most amiable for accomplishments; which dances best, and which is given to scandal, &c. They will find there a great variety of medical characters, probably the whole that are mentioned in the *Iatrologia* of Dr. Beddoes. But it is to be remembered that all this regimen will be in vain without a firm resolution to persevere in the chastest temperance. It is surprising what nature will effect in the cure of those violent dyspeptic and hepatic affections which have been induced by intoxication, when the inordinate use of wine has ceased. Nay, those diseases, when pronounced incurable, have sometimes yielded in a few months to a plain diet and water beverage: Nothing, therefore, can be more encouraging to persons who resolve firmly to lead a regular and sober life.

The chief complaints which require medicine are of the dyspeptic kind. The pain and uneasiness which they create is almost constant; and if accompanied with a hypochondriacal disposition, nothing can be more harassing. It is always necessary in such cases to correct the acidity

prevailing in the stomach and bowels; which may be done by Pulv. chel. comp. Pulv. cretæ comp. Mag. ust. Aq. calcis, &c. Acidity with flatulence often produces spasmodic pains and twitches, as they are called, as well as that irregular and tumultuous motion of the intestines called borborygmi. Bitters are readily combined with these anti-acids, such as colombo, quassia, chamæmelum, &c.; they likewise impede fermentation in the stomach, and also correct acidity. Iron, in its most suitable state, (for the form ought to be studied) given in small quantity, and continued long, is justly celebrated in these cases. I would have the belly preserved in a soluble condition by gentle laxatives; but ~~all the~~ ^{all the} harsher purgatives must be avoided: if the diet can be so conducted as to supersede the use of medicine in regulating this discharge, so much the better. The cramps and spasms which so often attend the weakened stomach are readily relieved by æther. vitr. and opium, with other stimulants; but these generally yield when the acidity is overcome. The physician, in directing his *formula*, will cautiously avoid every preparation that has ardent spirit in its composition. I have seen and known many instances where the most nauseous and fetid tinctures were devoured

with an avidity not to be conceived, when it was found that they were compounded of brandy. The taste of the mouth on such occasions has little to do in exciting the desires of the patient; there is a *vacuum* in sensation, if I may so term it, that can be supplied with nothing but the vinous stimulus while the habit remains, and the mind not earnestly in pursuit of something that can engage it.

The dyspnœa, or shortness of breath of drunkards, is of two kinds. The one is sympathetic with affections of the stomach, liver, heart, &c.; the other usually preceeds and attends hydrothorax, and a general disposition to dropsy. It is a most distressing symptom, as the maladies which it accompanies are seldom curable; opiates and æther. vit. give temporary ease. Some years ago I attended an old gentleman of seventy-two, who laboured under a severe dyspnœa and general dropsy. They were induced by *tippling* gin and water, a phrase very well applied to that frequent recourse to spirit and water which some people practice without getting drunk. This gentleman had a remarkable recovery, from the exhibition of squills, prepared as directed in the 3d vol. of *Medicina Nautica*, article Phthisis. In the space of a year he had a relapse, and was

cured in the same manner, but he never gave up his grog. He lived to eighty-four.

In those visceral obstructions, such as the tubercular or schirrous liver, I am averse to all severe mercurial courses. Indeed mercury in any form has seldom appeared to me to be of any service beyond its action in keeping the bowels open, where costiveness was to be guarded against. I conceive the frame of an habitual drunkard to have been so much exhausted by inordinate and unnatural stimuli, that it has long been my practice to commit him to the regimen of children, such as diet of milk, and other kinds of nourishment of the mildest quality. In short, instead of withdrawing the bottle by those slow degrees which have been long recommended by physicians, my plan of *cure* is at once to take from him every thing that is highly stimulating ; to put him on food in direct opposition to his former modes of living, and consign him to the lap of nature as if his existence were to pass through a second infancy. Indeed the reformed drunkard must be considered as a regenerated being.

I have attended two cases of diseased liver within these few months from frequent spirituous potation, although neither of them were deemed intemperate drinkers. They both proved fatal,

and were in the last stage of debility before I was consulted. One of them more liable to dyspepsia, laboured under jaundice, and the hue of the skin before death, as well as the urine, was nearly black. The other suffered from hydrothorax, though both had dropsy*. Inebriates who have been corpulent, I think are more than others, liable to *hydrops pectoris*. Obesity by distending the cellular substance, and when the adipose cells come to be empty afterwards, may pave the way to a greater exhalation; and diminished absorption at the same time, may take place from the pressure being removed.

In the cases just mentioned, the disease of the liver had been very slow in its progress, and without giving much pain. Indeed this viscus, notwithstanding its important office in digestion and sanguification, appears to be endued with little sensibility. When calculi are lodged in the ducts, acute pain is sometimes felt, but all its other diseases create little uneasiness. In icterus when the bile is carried in considerable quantity into the circulation, there is an unusual torpor of feeling and sluggishness of motion.

* I am sorry to observe that numerous cases of the same kind have since that time come under my notice.

throughout the body. Can the bile affect the oxygenation of the blood when absorbed in this manner? Might not this diminished sensibility be owing to the abstraction of oxygene? Are hepatic obstructions induced by vinous potation, similar in appearance to those produced by hepatitis in tropical climates? Mercury so successfully exhibited by Bontius, and others since his time, in the disease of the East Indies, has not, to my knowledge, ever relieved the tubercular affection from hard drinking.

The constipation of bowels which follows intoxication, for a single paroxysm may be owing to increased absorption from vinous stimulus; and diarrhœa may be caused by the inverted motion of the lacteals, by the increased action of exhalants and mucous glands, and also by the increased peristaltic motion of the intestines that hurries on their contents. The constipation which attends habitual ebriety may arise from a weaker peristaltic motion, or deficiency of bile; the diarrhœa from diminishing absorption, by the lacteals becoming torpid; the cure therefore can only be effected by removing the primary cause of the mischief.

Having always directed my curative indications of habitual temulency chiefly to the state of

the patient's mind, much may be frequently done by rousing particular passions, such as a parent's love for his children, the jealousy attached to character, the desire of fame, the pride of reputation, family pride, &c. I have seen a lovely infant force tears from a drunken father, when nothing else could affect him, though he was afterwards reclaimed. The good sense and management of an amiable wife, we know, will often accomplish wonders. The practice I would wish to inculcate, in taking advantage of the patient's temper and feelings, is nicely illustrated by the following fact: A friend of mine an eminent physician, in the north, was consulted by a gentleman on the subject of correcting an unfortunate attachment to the bottle, in the wife of his bosom. They formally sat down to deliberate, and the doctor listened with much patience to all the ways and means that had been devised by the distressed and affectionate husband to reclaim his *cara sposa*. So much had been done, and so many expedients tried in vain, that the physician declared, nothing further could be attempted, but to place a hogshead of brandy before her, and let her drink till *she gave up the ghost*! The last part of the sentence was pronounced with considerable emphasis. It so hap-

pened that the lady suspecting the subject of consultation to be herself, was concealed in an adjoining room, and overheard every word. The words of the physician strongly affected her; her pride was wounded, and her resentment roused to the highest pitch imaginable. In the whirlwind of passion the chain of habit was broke in an instant; female delicacy resumed its ascendancy over her actions; and from that moment she abjured the intoxicating charm. I am sorry to add my honest friend was never after beheld with complaisance by the fair convert, though he had proved to be her best benefactor.

In May last I was requested to visit a respectable tradesman, whom I found labouring under severe dyspeptic complaints, depression of spirits, great apprehension, and, at times, alienation of mind. For my two or three first visits I was unable to divine the cause of such extraordinary symptoms. But in the course of attendance it at last came out that he had lately been much addicted to the bottle. I could now take my ground to advantage; and in a long conversation with him, he told me that something lay heavy on his mind. He then related what it was: he had some months before been in a company

where one of his particular friends, in an unbecoming manner, traduced the character of another, and which strongly affected him. This circumstance preyed upon his memory; he could neither sleep or rest for it; and he had recourse to drinking to quiet the tumult of his spirits, and agitation of mind. Being now informed of all the particulars of this curious hallucination, with much difficulty I at last persuaded him to relinquish his liquor. He kept his resolution for some days, when he relapsed, drank a considerable quantity, and next morning early all his horrors returned. About nine o'clock I found him quite frantic; and he even spoke of destroying himself. He had now all the symptoms of phrenitic delirium, or *brain fever*. Being a strong hale man I ordered venæ-section; and blood to the amount of twenty-four ounces was taken from him. He became quiet immediately; slept sound the succeeding night, and only complained of weakness in the morning. I now reasoned with him at my visits instead of plying him with medicine: he listened to my admonitions with great attention; thanked me, even to tears, for the signal change which my arguments had made upon him, and happily regained his usual serenity of mind.—I was

much pleased with the successful issue of this case; for at first none ever appeared more likely to terminate in permanent madness.

Having now finished my method of treating and correcting the habit of intoxication, as far as my own experience has warranted me, I shall deliver my sentiments on what appears to me the best method of *treating the drunken Paroxysm*.

As the *Materia Medica* does not supply any thing as yet known for correcting the inebriating power of alkohol, the *cure of the paroxysm* will turn very much in evacuating it from the stomach; which must be best done by throwing in quantities of lukewarm water, and provoking vomiting. Acids, it is true, have been said to prove very efficacious in destroying the stimulant power of ardent spirit by chemical union, thereby altering its nature. It has been a common practice to exhibit acids to obviate the effect of large doses of opium: but it is doubtful whether ever much good was done by their assistance. If this is at all a chemical question, it will not be easy to explain the mode of action of these substances with opium. I would therefore, at all times, prefer the method of dilution, and provoking vomiting, if possible. It is remarked in a former part of

this essay that death is sometimes so sudden after the deglutition of a large quantity of raw or undiluted spirit, that no time is given to call in medical assistance. Nevertheless this practice is so simple as to be easily carried into effect by any person present: but I am ignorant whether any rules on the subject have been published by the Humane Society.

Should the drunken man have so far lost the power of sense and motion as to be unable to help himself, he ought to be placed either in an armed chair, where he cannot fall, or laid in a bed with the head erect, inclining a little to the one side, for the purpose of facilitating vomiting. The neckcloth ought to be taken off, and the collar of the shirt unbuttoned. The doors and windows of the room ought to be thrown open, for a free ventilation; all visitors beyond assistants must be excluded, and whatever may add to the heat of the body is to be carefully avoided.

If his face is much swoln, and unusually flushed or bloated; if his breathing is stertorous, with the eyes fixed and vessels turgid, there is danger of an instant fit of apoplexy. How far bleeding with the lancet, cupping the temples, or applying leeches, for the purpose of relieving the

brain, are to be depended upon, I cannot well determine. I have tried bleeding, and the patient has recovered that fit; but in a few hours another one has carried him off. If, however, these means should be attempted, attention must be paid to the strength and age of the patient, and to the degree of comatose symptoms, so as to regulate the quantity of blood necessary to be taken away. Which being done the stomach is to be quickly unloaded; and as the delay in exhibiting emetics might be fatal, the best means of accomplishing this is by introducing a feather or any suitable substance into the mouth, and tickling the faucers, till the contents of that viscus are all evacuated*.

I am well aware that there are physicians who may hesitate to direct vomiting in the manner which I have proposed. Vomiting, under an impending apoplexy, has been considered a dangerous practice; as during the inverted action of the stomach, and the collapsed state of the lungs,

* Si ebrius quispiam repente aphonius fiat, convulsus moritur, nisi febre corripiatur, aut ubi, ad horam pervenerit, qua crapulæ solvuntur vocem recuperit.

Hip. Aphor. v. sect. 5.

Qui ebrius obmutuit, is fere nervorum distentione consumitur, nisi aut febris accessit, aut eo tempore, quo ebrietas solvi debet, loqui cœpit.

Cel. De Med. l. ii. c. 6.

by a long inspiration, the blood is accumulated in the blood-vessels of the brain, and thus a greater hazard of their distention, rupture and effusion from them take place. That such things might happen during the effort of vomiting I do not mean to dispute: but I have long made the observation that spontaneous vomiting is a certain relief here, when there is every sign of instant apoplexy. I therefore conceive it fair to imitate that effort by art. Indeed those gentlemen who have cavilled most at this practice have produced no fact to controvert it: their dislike to it rests solely on theoretical opinions. To these opinions, fortunately, the operations of nature are not obliged to bend: for if we are to suppose it dangerous to evacuate the loaded stomach of the inebriate, vomiting, at any time, must be considered as an operation not only inexpedient but to a certainty hurtful.

The means of exciting vomiting, I have said above, are so simple, that any person might accomplish it, as in the following instance. A gentleman returning home on a dark night stumbled over something soft in the street, which induced him to examine what it was, when it proved to be a man most insensibly drunk. Not wishing to leave him to the hazard of being trod upon by

a horse or earriage, he waited for the next passenger, who kindly took him on his back. They carried him to the first light which they saw, which proved to be his own house, and where his mother was anxiously waiting his return from a corporation feast. The man was to all appearance dying: but one of the gentleman having perused my thesis, thought, if any thing could save him, it was by unloading the stomach, which was effected by forcing down warm water. This timely expedient brought him quickly to his senses and he was snatched from the jaws of death. I firmly believe that many human beings might be saved were equal humanity exercised for the recovery of drunkards in similar conditions.

I would also recommend the bowels to be immediately emptied by Clysters. Common salt, to the amount of two table-spoonfuls dissolved in a pint of water, blood-warm, can be easily procured, and will act quickly.

Throughout the whole paroxysm the application of cold water, rectified spirit of wine, or æther, to the head and temples, is proper. Although it may be difficult to explain the *modus operandi* of these articles, I am well convinced of their utility: but the cold produced by their evaporation from the head may in a great measure

account for their good effects. The affusion of cold water, or the shower-bath, when it can be procured, might be still more beneficial.

“ Senatorem Britannicum celeberrimum, (non
 “ magis spectabilem elegantia orationis, quam
 “ frequentia ebrietatis,) fertur, gravem vino,
 “ mantile aqua frigida bene madefactum circum
 “ caput constringere, in lectulum se recipere; et
 “ mane expergefactum ad curiam pergere, mira-
 “ bile dictu! sine capitis dolore, vel languore,
 “ vel lassitudine aut animi aut corporis, ad di-
 “ cendum semper paratum*.”

Analagous to the use of the wet kerchief bound about the head, is the *clay cap*, sometimes tried in maniacal cases. . Whatever moderates the heat and velocity of the circulation of the brain, would seem to be beneficial in both diseases.

Sudden immersion of the body in cold water has often brought a drunkard to his senses. I have frequently known this happen in his Majesty's ships, where seamen, in a state of stupid intoxication, have fallen overboard; they are generally sober when picked up. The case of the miller mentioned in a former part of this Es-

* Dissert. De Ebrietate, p. 41.

say, supports the opinion. Buffon says, "Among
 " the savages in the Isthmus of America, the
 " women throw their drunk husbands into the
 " rivers, in order the more speedily to remove
 " the effects of intoxication*." This practice
 among these savages was probably tried at first
 as a punishment, but having observed its good
 effects it was continued as a remedy. The cus-
 tom of *ducking* a drunken husband, common
 enough in different parts of this island, had most
 likely a similar origin. It is much to be lament-
 ed that our fair country-women do not exercise
 their privilege much oftener. But it is to be re-
 membered, that there are limits to the practice of
 cold immersion, whether local or general. The
 paroxysm of ebriety is to be distinguished by
 two stages, each exhibiting very different symp-
 toms. The first stage comprehends that train of
 symptoms which subsists during the stimulant
 power of the wine, such as heat of body, full
 pulse, flushed countenance, &c. The second
 stage includes those signs of debility
 which succeed; the body is cold, the pulse
 weak, and the countenance pale. To the first
 stage, the cool regimen and evacuating plan are

* Chap. on Infancy, vol. ii.

chiefly to be confined; nay, it is likely these would do much harm when the debility commences, for exposure to cold, and sleeping on damp ground after intoxication, have brought on many mortal diseases. It is under these circumstances, I think, that the inflammatory affections are produced; the body being first weakened and chilled, and then improperly brought near great fires, or into warm rooms, is all at once plied with every thing heating.

An officer of my own acquaintance having often heard that cooling the head would relieve ebriety, when in the second stage of the paroxysm, plunged his head into a bucket of cold water, as being the most effectual way, was soon after seized with phrenitis, or *brain fever* as it is vulgarly called, of which he died in a few days. Cold water applied to the head is not therefore a safe remedy at all times for the head-ache of drunkards.

Persons addicted to ebriety are often found in the streets and highways, and sometimes in these situations exposed to the most inclement weather. Were they to remain long in that condition in severe frosts they must run great hazard of perishing; for as soon as the second stage of the paroxysm commences, the body becomes feeble,

the circulation of the blood languid, and the vital powers so exhausted that no great time would be required for the complete extinction of the living principle. It is to be suspected that most of the travellers who perish among snow, are of this description ; fool-hardy, under the false courage of dram-drinking, they sally out in the dark to explore their way, and quickly lose the road, from the change of objects, which falling snow, or snow already fallen, occasions. The dram in this situation of distress only helps to accelerate death, it assists in bringing on drowsiness and sleep, which leaves the body to be sooner weakened by the cold, and the benighted traveller never wakes again !

If, however, signs of life appear when the person is found, great caution is necessary, lest, by attempting to recover him by strong spirits and carrying him too near a fire, you extinguish the small remains of the vital principle. Here all the means and the precaution usually taken for the recovery of frost-bitten limbs will be necessary. The hands, arms, feet, and legs, may at first be rubbed with snow, or washed with cold water, then wiped dry, and the patient put to bed. The first thing to be given by the mouth, may be a little warm milk, and as the heat of the body in-

creases, something more stimulant may be added. The great object to be attended to, is to cherish the slender remains of life by the gentlest stimuli, for the stronger would tend to destroy them. The future strength of the body is to be recruited by measures suited to the condition of the system, which need not to be detailed here.

It might perhaps be considered by some as too great a compliment to instruct the drunkard how to correct morning head-ach and sick stomach. I have quoted before the lines of Horace which apply to this subject. Something relishing is usually served up on this occasion, such as salted fish, ham, salted, or smoke-dried meat, &c. Kitchen salt is a very grateful stimulus to a stomach weakened by excess. Dr. Cullen, in his Lectures on Dyspepsia, used to say, that he had found it prove anti-emetic when every thing else failed.

"Si nocturna tibi noceat potatio vini,

"Ex eodem mane bibas, medicina fuerit."

SANCTOR.

Acidity, gastrodynia, &c. are to be relieved by anti-acids and stimulants. Dr. Home says, "Calor lecti, equitatio et elixir vitrioli, nauseam hesterni Bacchi abigunt*." There are,

*Principa Medicina

perhaps; some who will prefer a morning ride, or other kinds of exercise in the open air or the cold bath, to all kinds of medicine.

I have certainly known and heard of instances of ebriety being quickly changed into sobriety by fear, danger, excessive joy or grief, acute pain and probably by whatever means sudden impressions are made on our sentient system. But as these means cannot easily be imitated by our art, it would tend to no useful purpose to offer any speculations on the mode of action.

As a fit of ebriety leaves the body dull, languid weak, and prone to numerous diseases, great caution ought to be taken in exposing it in that state to marsh effluvium, to humidity, cold, or any kind of contagion, whether of fever or others.



I shall now conclude this Essay with the following admonition : Let all those persons, whose constitutions have any predisposition to the diseases mentioned in the catalogue, beware how they get drunk, or fall into the habit of intoxica-

tion. For this predisposition will hasten the approach of that disease, that must in the end terminate their existence. Such persons as Celsus finely advises, " Suspecta habere sua bona debere."

—Not poppy nor mandragora,
Nor all the drowsy syrups of the world,
Shall ever med'cine thee to that sweet sleep
Which thou ow'dst yesterday.

SHAKSPEARE.

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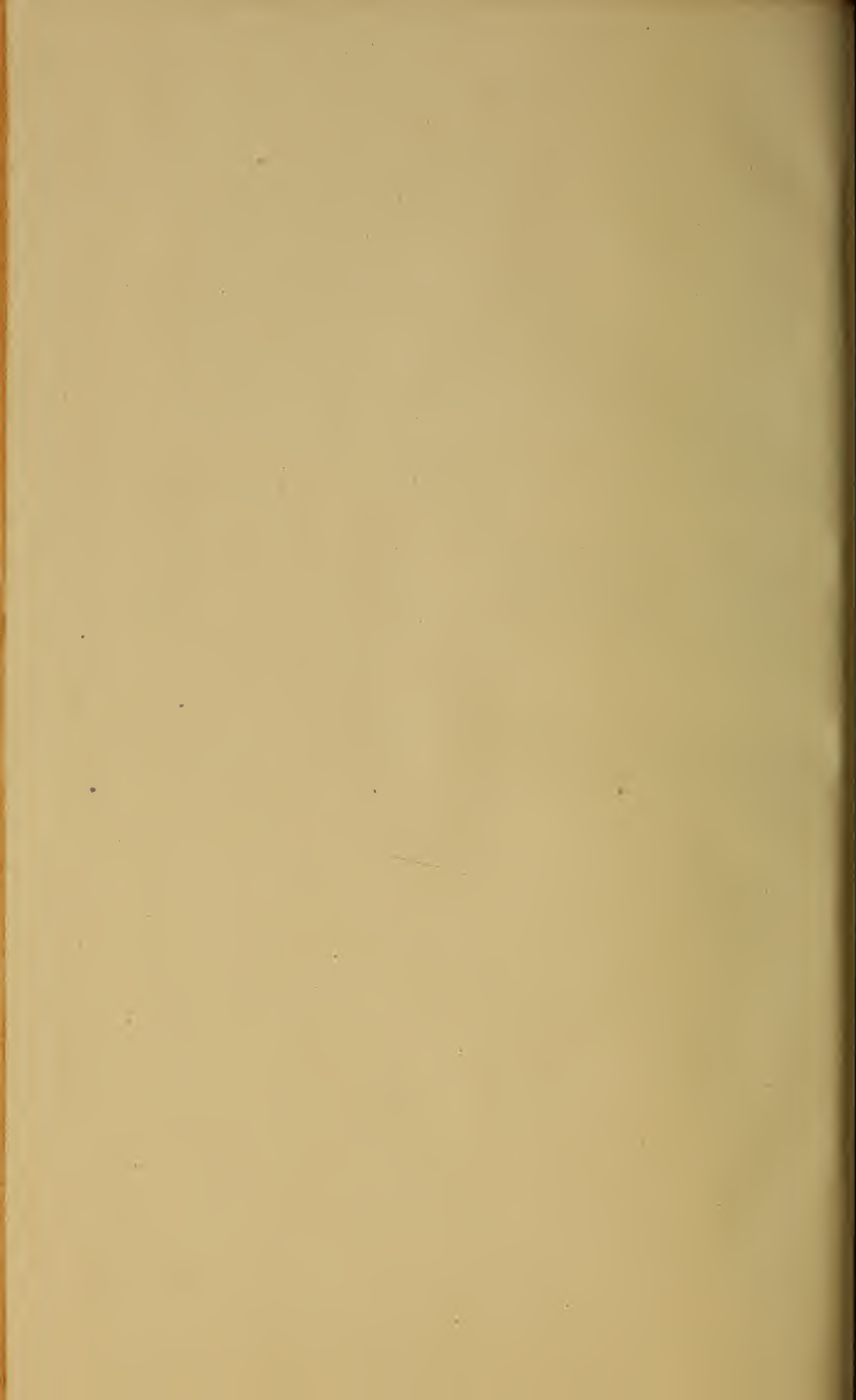
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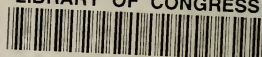
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